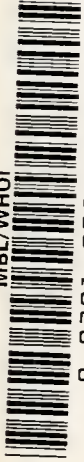




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THE  
VOYAGE OF H.M.S. CHALLENGER.

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ZOOLOGY—VOL. IX.

*P L A T E S.*



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REPORT  
ON THE  
SCIENTIFIC RESULTS  
OF THE  
VOYAGE OF H.M.S. CHALLENGER

DURING THE YEARS 1873-76

UNDER THE COMMAND OF  
CAPTAIN GEORGE S. NARES, R.N., F.R.S.  
AND  
CAPTAIN FRANK TOURLE THOMSON, R.N.

PREPARED UNDER THE SUPERINTENDENCE OF  
THE LATE  
Sir C. WYVILLE THOMSON, Knt., F.R.S., &c.  
REGIUS PROFESSOR OF NATURAL HISTORY IN THE UNIVERSITY OF EDINBURGH  
DIRECTOR OF THE CIVILIAN SCIENTIFIC STAFF ON BOARD  
AND NOW OF  
JOHN MURRAY, F.R.S.E.  
ONE OF THE NATURALISTS OF THE EXPEDITION

ZOOLOGY—VOL. IX.  
PLATES.

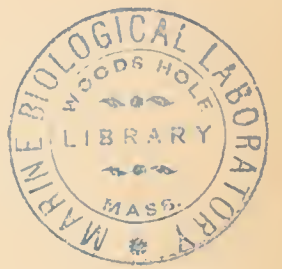


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PLATE I.



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# PLATE I.

## NUBECULARIA.—BILOCULINA.

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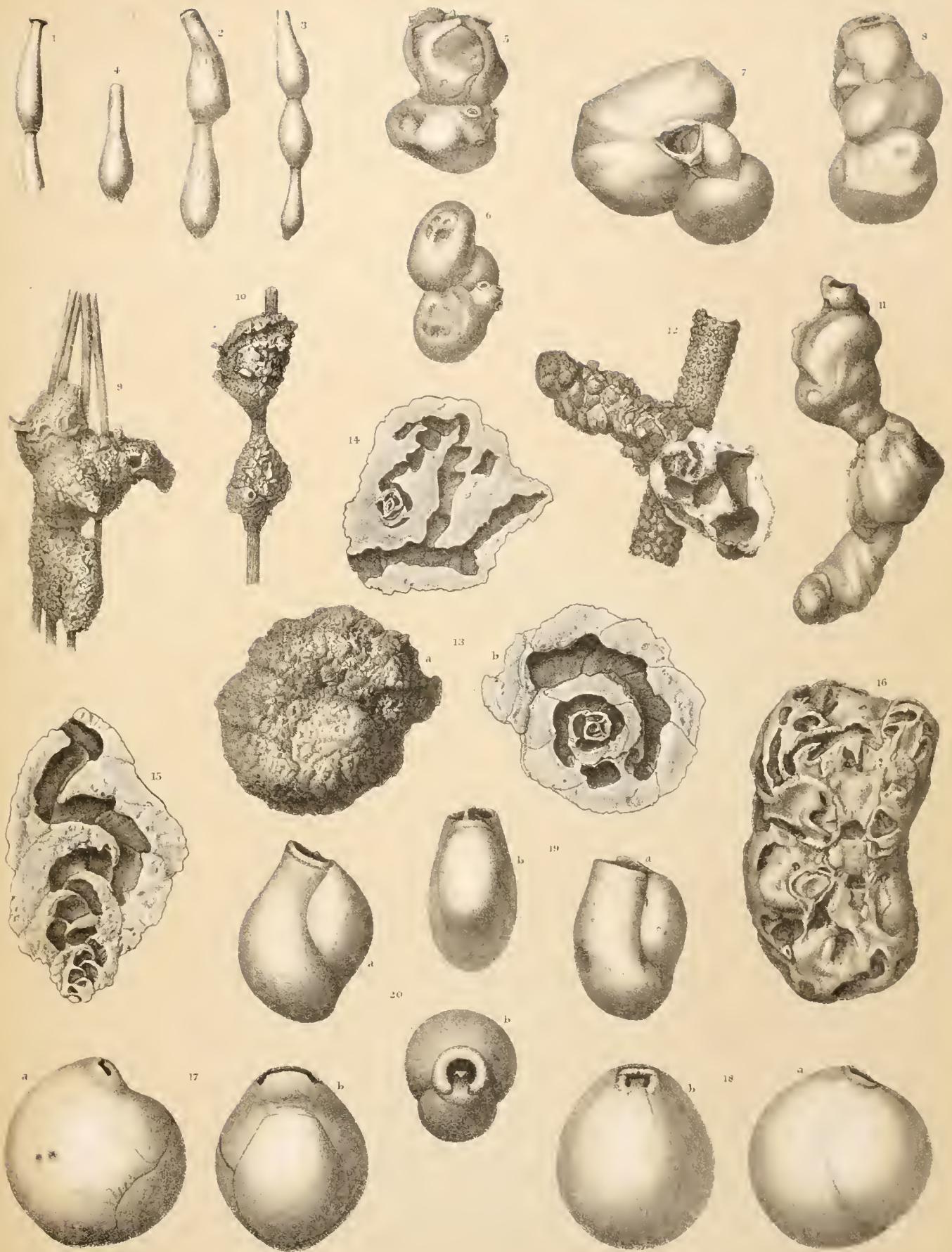




PLATE II.

## PLATE II.

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			Diam.	Page
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MILIOLA (Biloculina)





PLATE III.



# PLATE III.

## BILOCULINA.—MILIOLINA.

		Diam.	Page
Figures 1, 2.—	<i>Biloculina depressa</i> , d'Orbigny, . . . . .	× 40	145
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„ 3.—	<i>Biloculina depressa</i> , d'Orb., var. <i>serrata</i> , nov., . . . . .	× 25	146
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„ 4, 5.—	<i>Biloculina ringens</i> (Lam.), var. <i>denticulata</i> , nov., . . . . .	× 40	143
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	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		





PLATE IV.

## PLATE IV.

### MILIOLINA.

			Diam.	Page
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	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			
„ 7.—	<i>Miliolina circularis</i> (Born.), var. <i>sublineata</i> , nov.,	.	× 50	169
	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			
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	<i>a, b</i> , Lateral aspects ; <i>c</i> , oral aspect.			



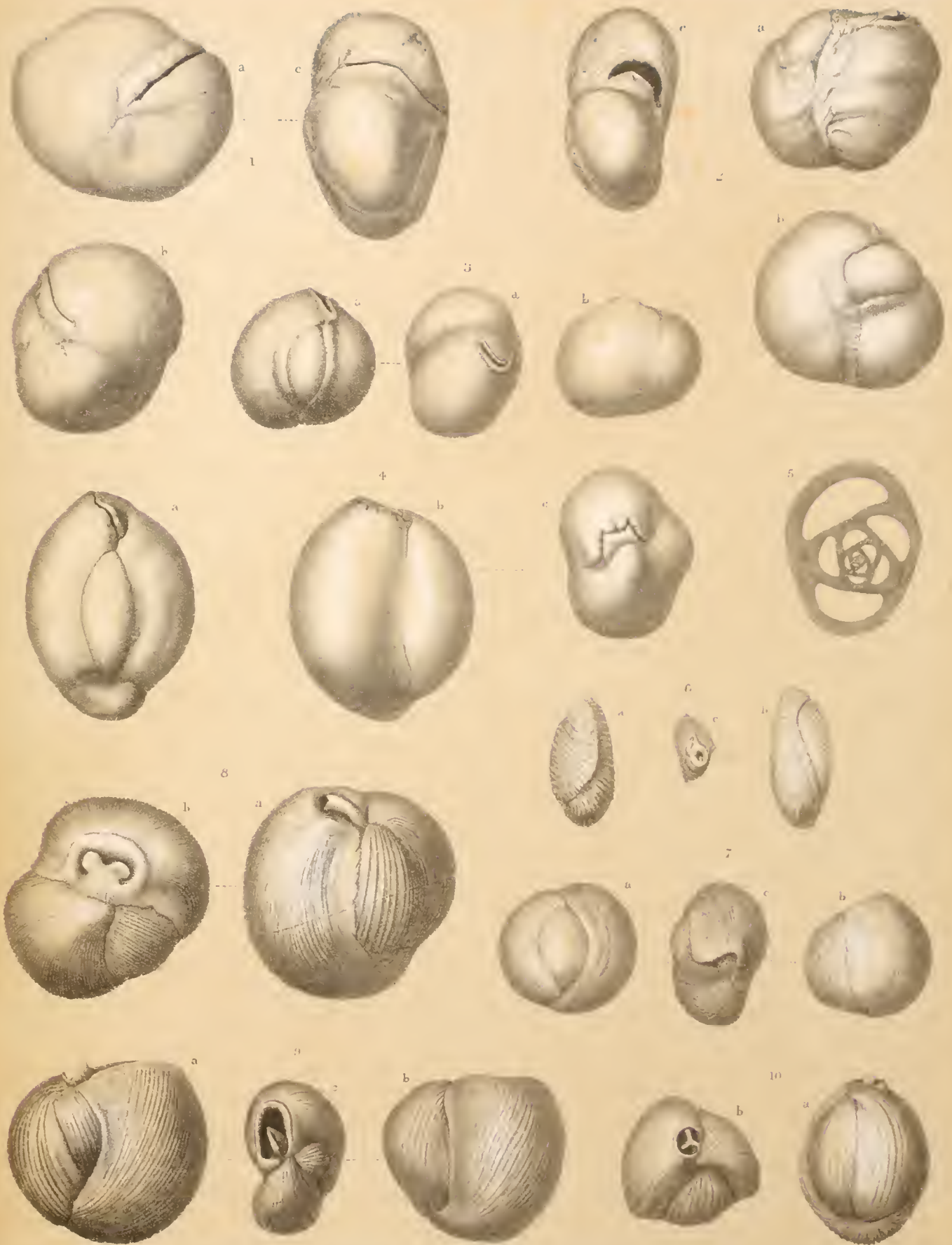




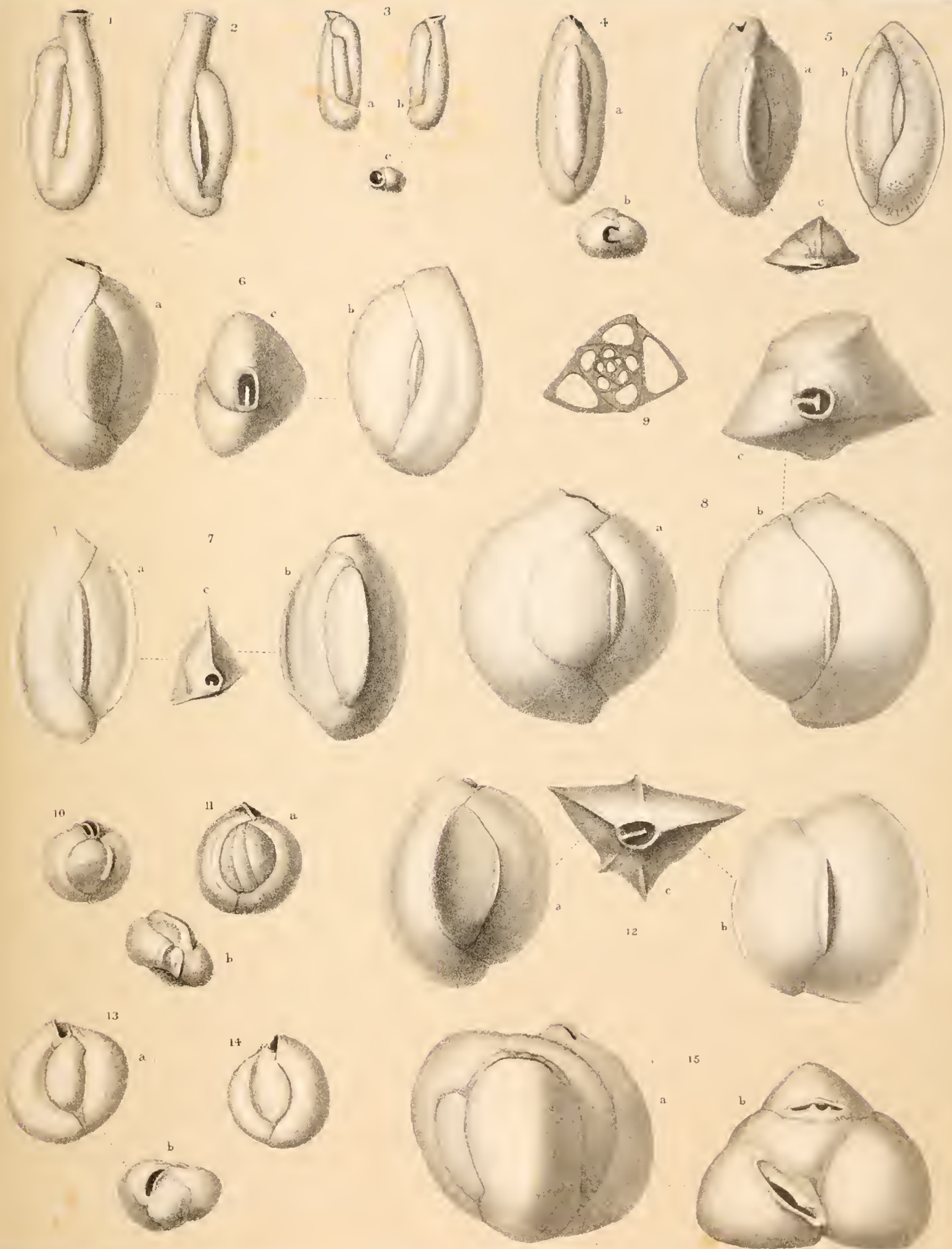


PLATE V.

# PLATE V.

## MILIOLINA.

				Diam.	Page	
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PLATE VI.

## PLATE VI.

### MILIOLINA.

		Diam.	Page
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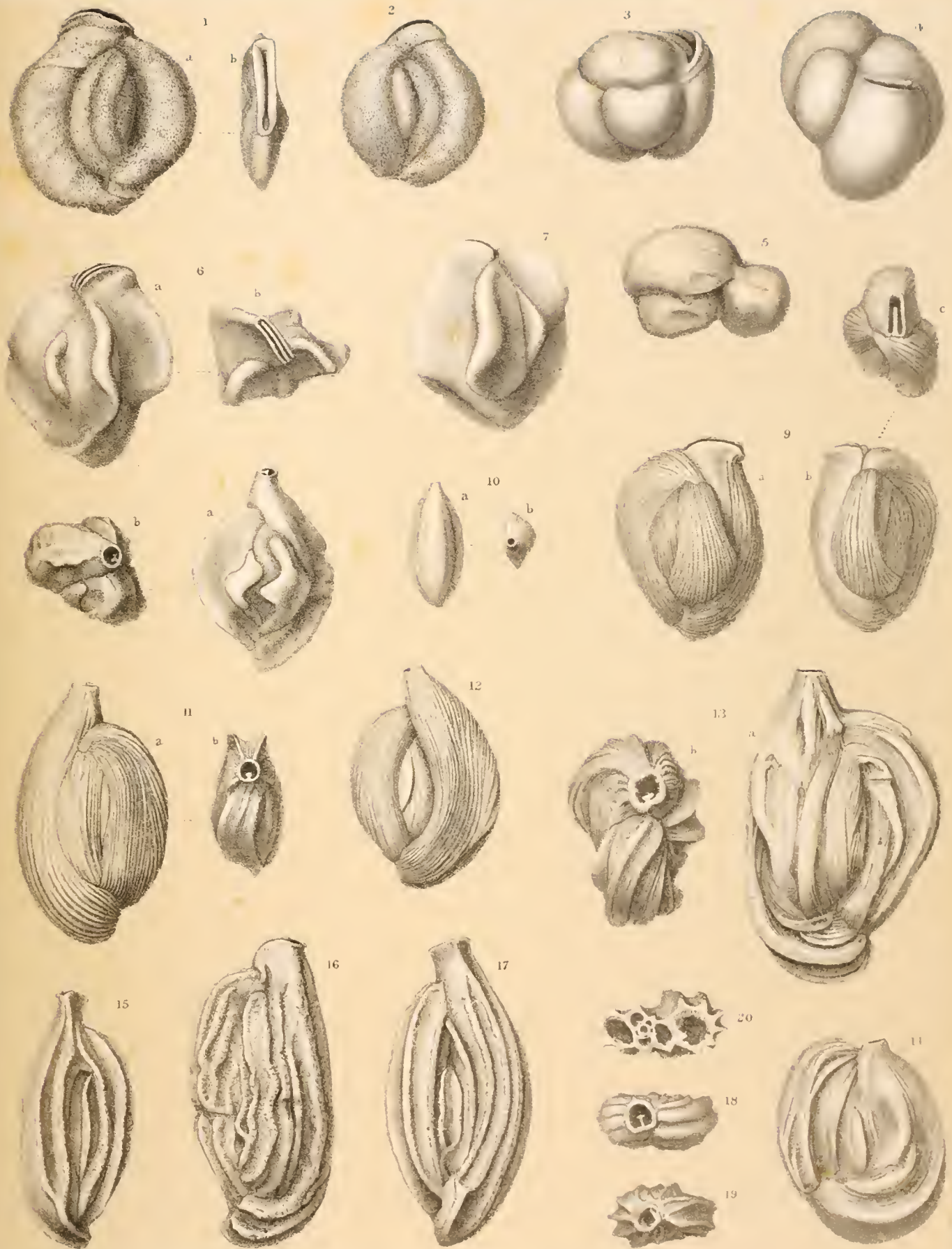




PLATE VII.

## PLATE VII.

### MILIOLINA.—HAUERINA.

			Diam.	Page
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	Fig. 12. Surface of the shell,	.	× 100	
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	<i>a</i> , <i>b</i> , Lateral aspects ; <i>c</i> , oral aspect.			
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	Specimens of various forms and in different stages of growth.			
	15 <i>b</i> , Oral aspect of adult specimen.			



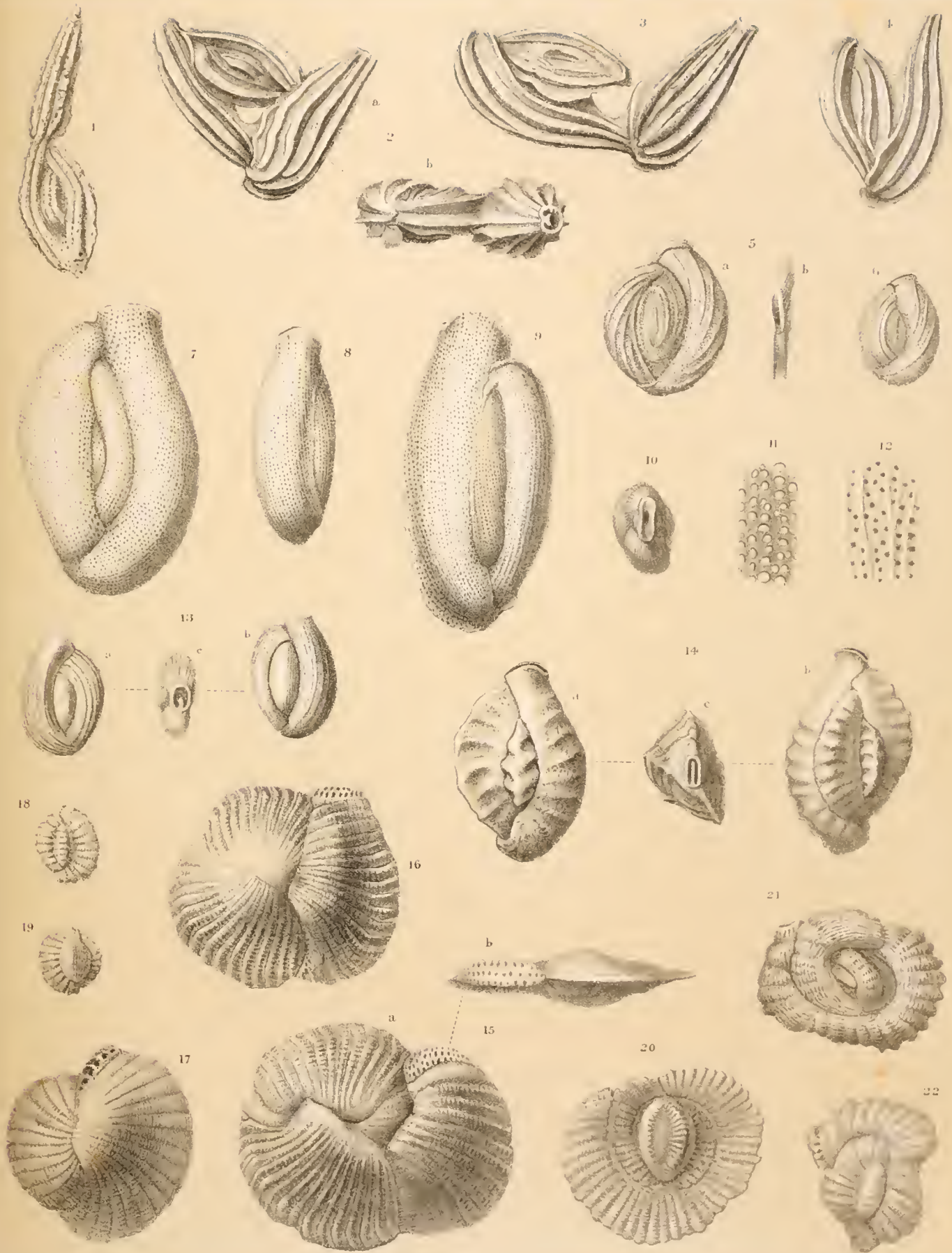




PLATE VIII.



# PLATE VIII.

## PLANISPIRINA.—MILIOLINA.—SPIROLOCULINA.

			Diam.	Page
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PLATE IX.

# PLATE IX.

## MILIOLINA.—SPIROLOCULINA.

			Diam.	Page
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„ 11.—	<i>Spiroloculina planulata</i> , Lamarck, sp., . . . . .	×	35	148
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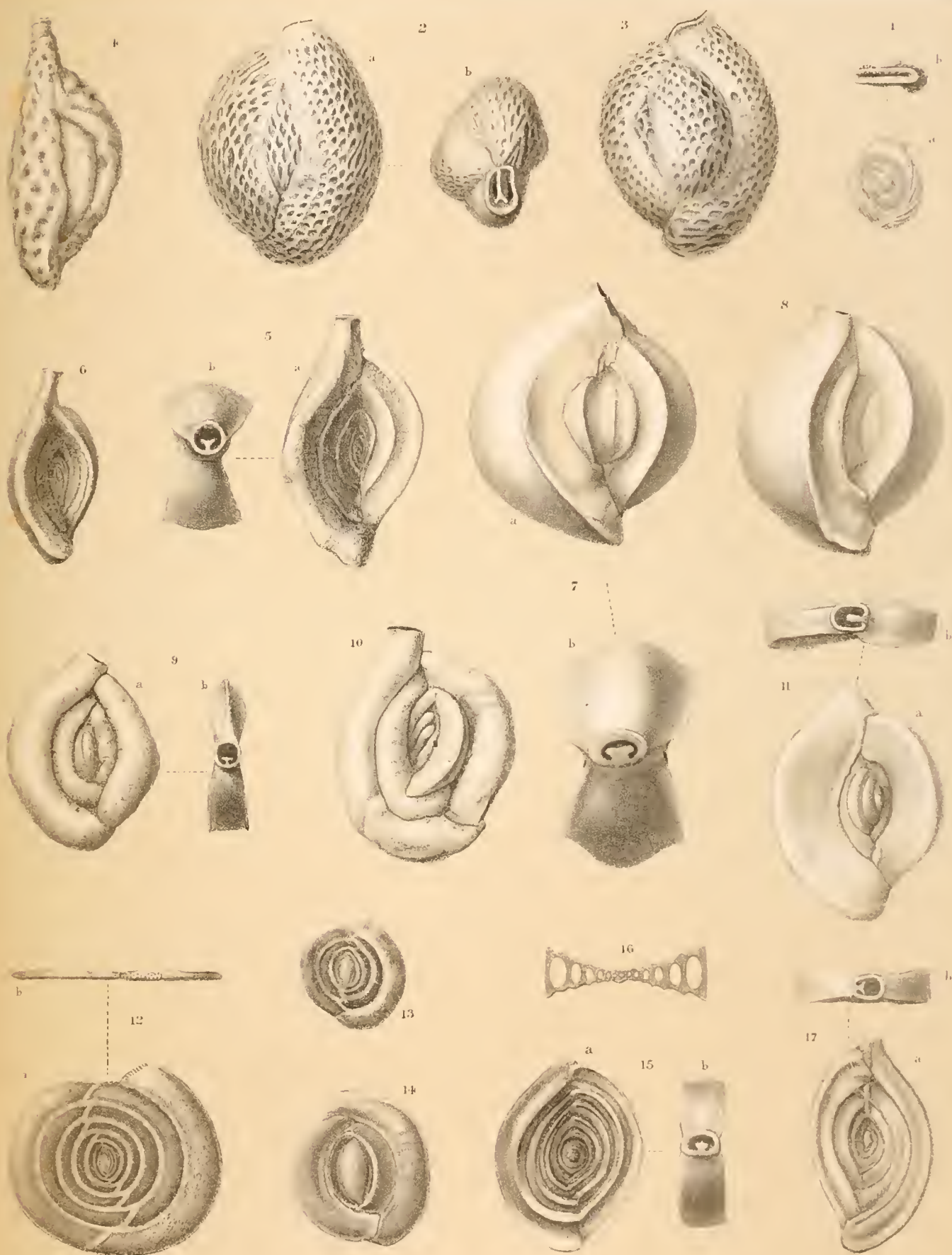




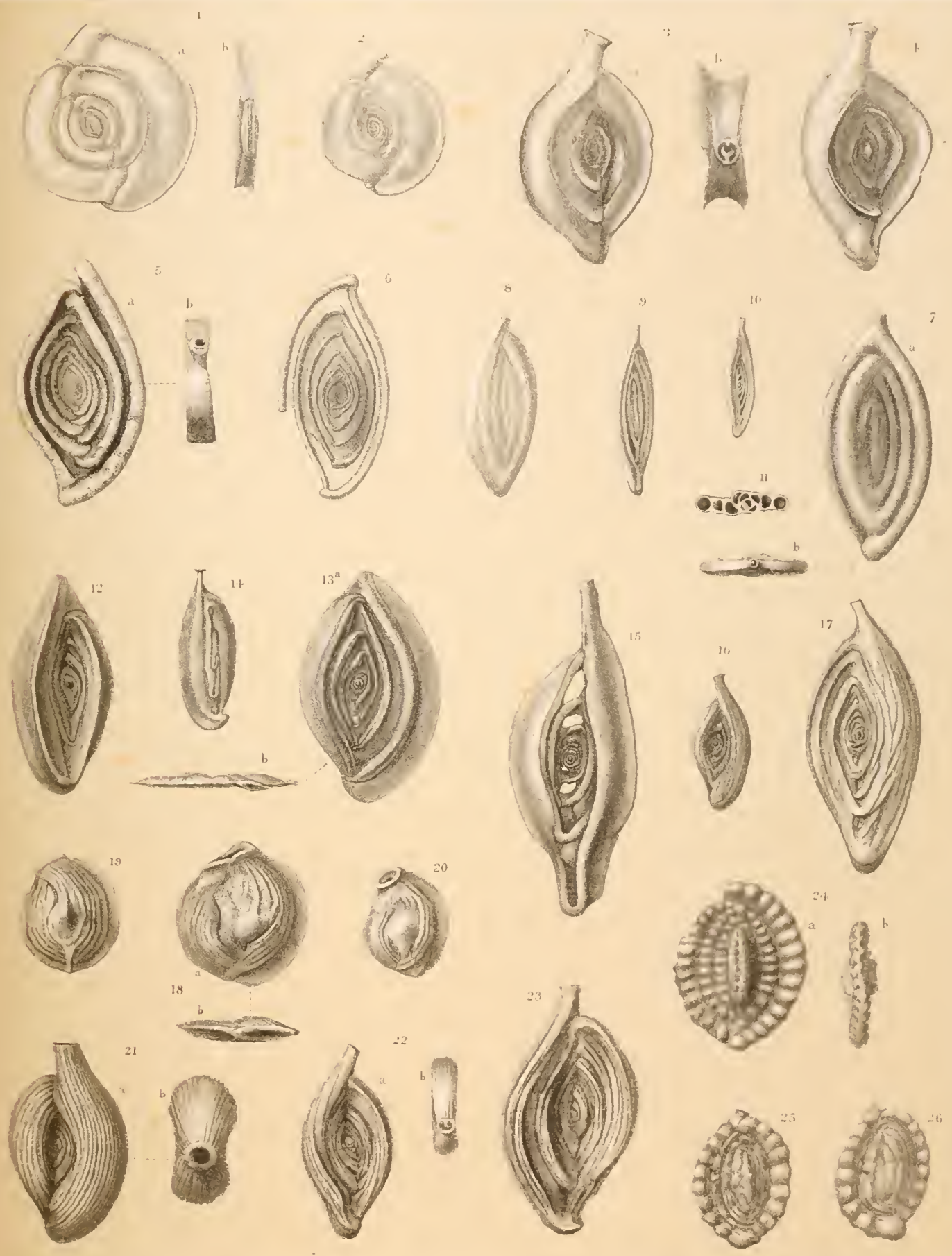
PLATE X.



# PLATE X.

## PIROLOCULINA.

		Diam.	Page
Figures 1, 2.— <i>Spiroloculina limbata</i> , d'Orbigny, (var.) . . .	×	30	150
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„ 21.— <i>Spiroloculina antillarum</i> , d'Orbigny, . . .	×	30	155
<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.			
„ 22, 23.— <i>Spiroloculina grata</i> , Terquem, . . .	×	30	155
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„ 24-26.— <i>Spiroloculina crenata</i> , Karrer, . . .	×	75	156
Figs. 24 <i>a</i> -26. Lateral aspect ; 24 <i>b</i> , oral aspect.			



MILIOLA (Spiroloculina)



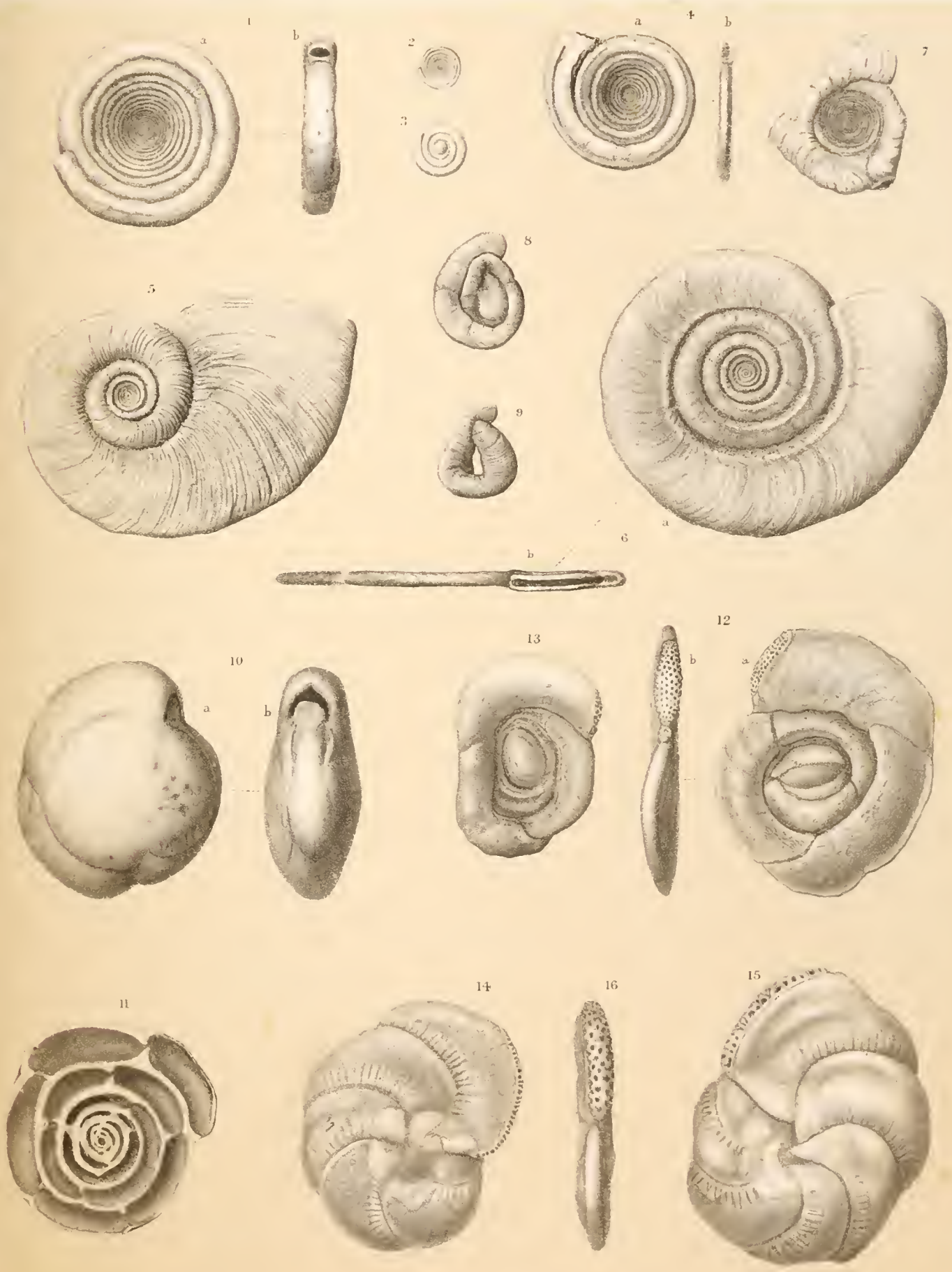
PLATE XI.

## PLATE XI.

### CORNUSPIRA.—PLANISPIRINA.—HAUERINA.

			Diam.	Page
Figures 1-3.—	<i>Cornuspira involvens</i> , Reuss, . . . . .	×	30	200
	Figs. 1 <i>a</i> , 2, 3. Lateral aspect ; 1 <i>b</i> , peripheral aspect.			
„ 4.—	<i>Cornuspira carinata</i> , Costa, sp., . . . . .	×	30	201
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„ 5-9.—	<i>Cornuspira foliacea</i> , Philippi, sp., . . . . .			199
	Figs. 5, 6 <i>a</i> , Lateral aspect ; 6 <i>b</i> , peripheral aspect, . . . . .	×	15	
	Figs. 7-9. Monstrous specimens, . . . . .	×	16	
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	Fig. 10. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.			
	Fig. 11. Horizontal section of the test.			
„ 12, 13.—	<i>Hauerina compressa</i> , d'Orbigny, . . . . .	×	50	190
	Figs. 12 <i>a</i> , 13. Lateral aspect ; 12 <i>b</i> , peripheral aspect.			
„ 14-16.—	<i>Hauerina circinata</i> , Brady, . . . . .	×	50	191
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CORNUSPIRA\_HAUERINA

Hanhart 1897





PLATE XII.

## PLATE XII.

### PLANISPIRINA.—OPHTHALMIDIUM.—VERTEBRALINA.—ARTICULINA.

				Diam.	Page
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	Figs. 7, 8. Lateral aspect,	.	.	× 50	
„ 6.—	<i>Ophthalmidium tumidulum</i> , n. sp.,	.	.	× 50	189
„ 9-11.—	<i>Vertebralina insignis</i> , n. sp.,	.	.	× 50	187
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	Figs. 12 <i>a</i> , 13. Lateral aspects ; 12 <i>b</i> , oral aspect.				
„ 14-16.—	<i>Vertebralina striata</i> , d'Orbigny,	.	.	× 50	187
	Figs. 14, 15 <i>a</i> , 16. Lateral aspect ; 15 <i>b</i> , oral aspect.				
„ 17, 18.—	<i>Articulina conico-articulata</i> , Batsch, sp.,	.	.	× 50	185
	Figs. 17, 18 <i>a</i> , Lateral aspect ; 18 <i>b</i> , oral aspect.				
„ 19-21.—	<i>Articulina lineata</i> , n. sp.,	.	.	× 50	183
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„ 22-24.—	<i>Articulina sagra</i> , d'Orbigny,	.	.	× 50	184
	Figs. 22-24. Lateral aspect ; <i>b</i> , oral aspect.				

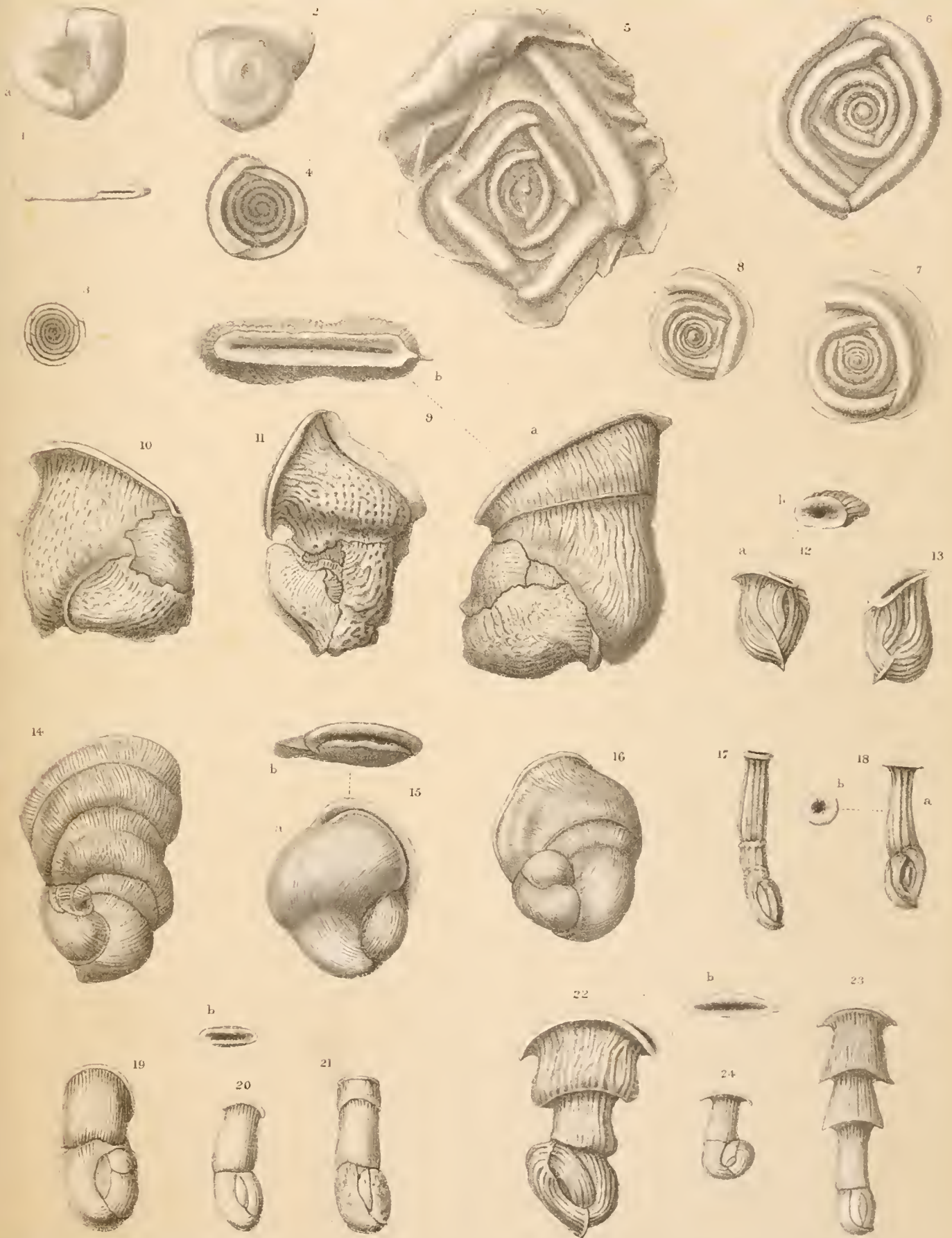




PLATE XIII.

# PLATE XIII.

## ARTICULINA.—PENEROPLIS.

		Diam.	Page
Figure	1.— <i>Articulina conico-articulata</i> , Batsch, sp., . . . . .	× 50	185
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„	12-25.— <i>Peneroplis pertusus</i> , Forskål, sp., . . . . .		204
	Fig. 15. Var. <i>a</i> ,— <i>Peneroplis planatus</i> , Fichtel and Moll, sp., a, Lateral aspect ; b, front peripheral aspect.	× 50	
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	Figs. 18, 19 <i>a</i> , Lateral aspect ; 19 <i>b</i> , oral end.		
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	Figs. 12, 13. Var. <i>g</i> ,— <i>Peneroplis levigatus</i> , Karrer, .	× 50	
	Lateral aspect.		



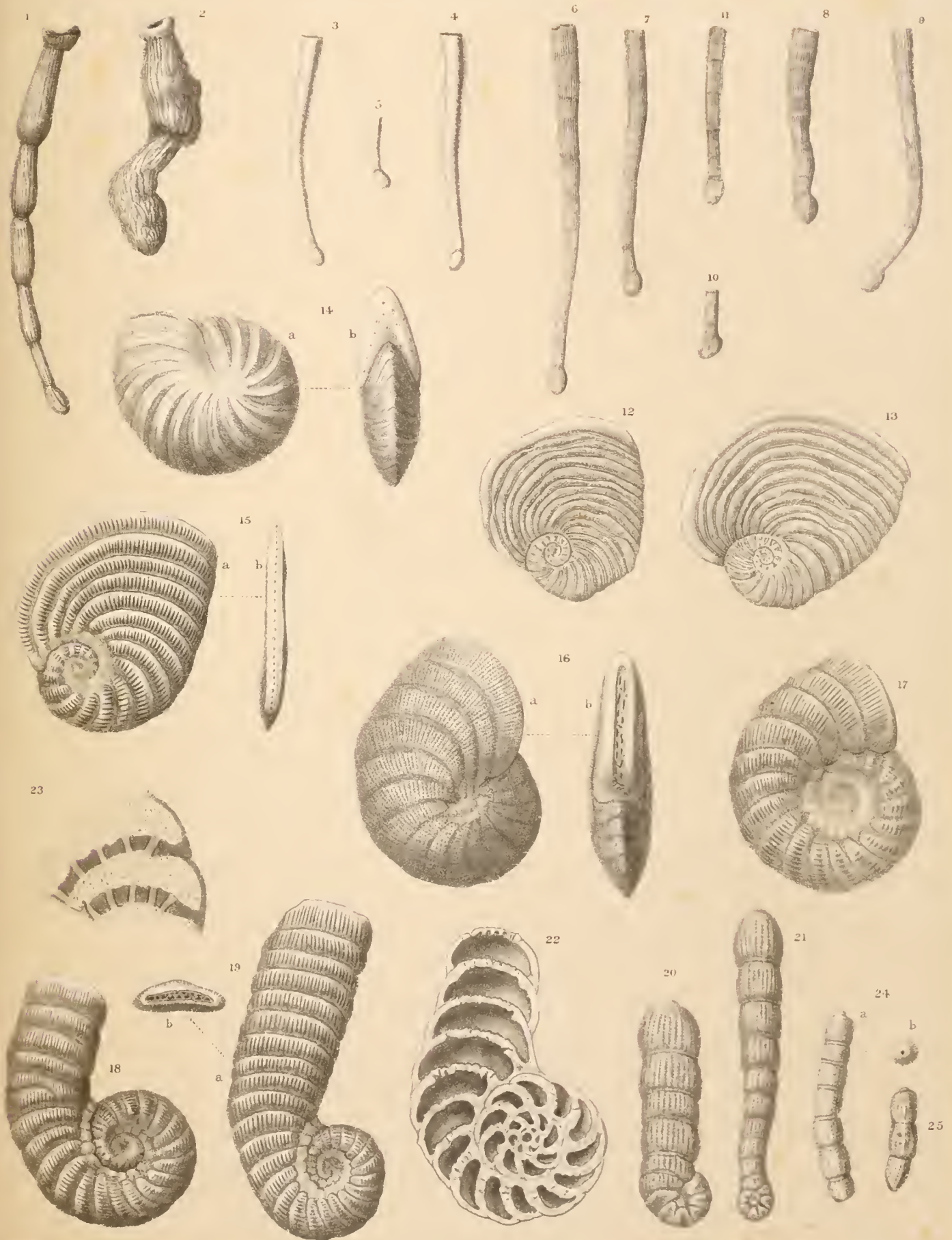






PLATE XIV.

## PLATE XIV

### ORBICULINA.

	Diam.	Page
Figures 1-13.— <i>Orbiculina adunca</i> , Fichtel and Moll, sp., .	.	209
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Figs. 3, 4. Varieties analogous to the “Spiroline” modifications of <i>Peneroptis</i> , .	× 30	
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Figs. 7, 8. Flabelliform adult shells ;— <i>Nautilus</i> <i>aduncus</i> , Fichtel and Moll, .	× 20	
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Fig. 13. Section of the shell more highly magnified, showing the superficial punctation, .	× 100	

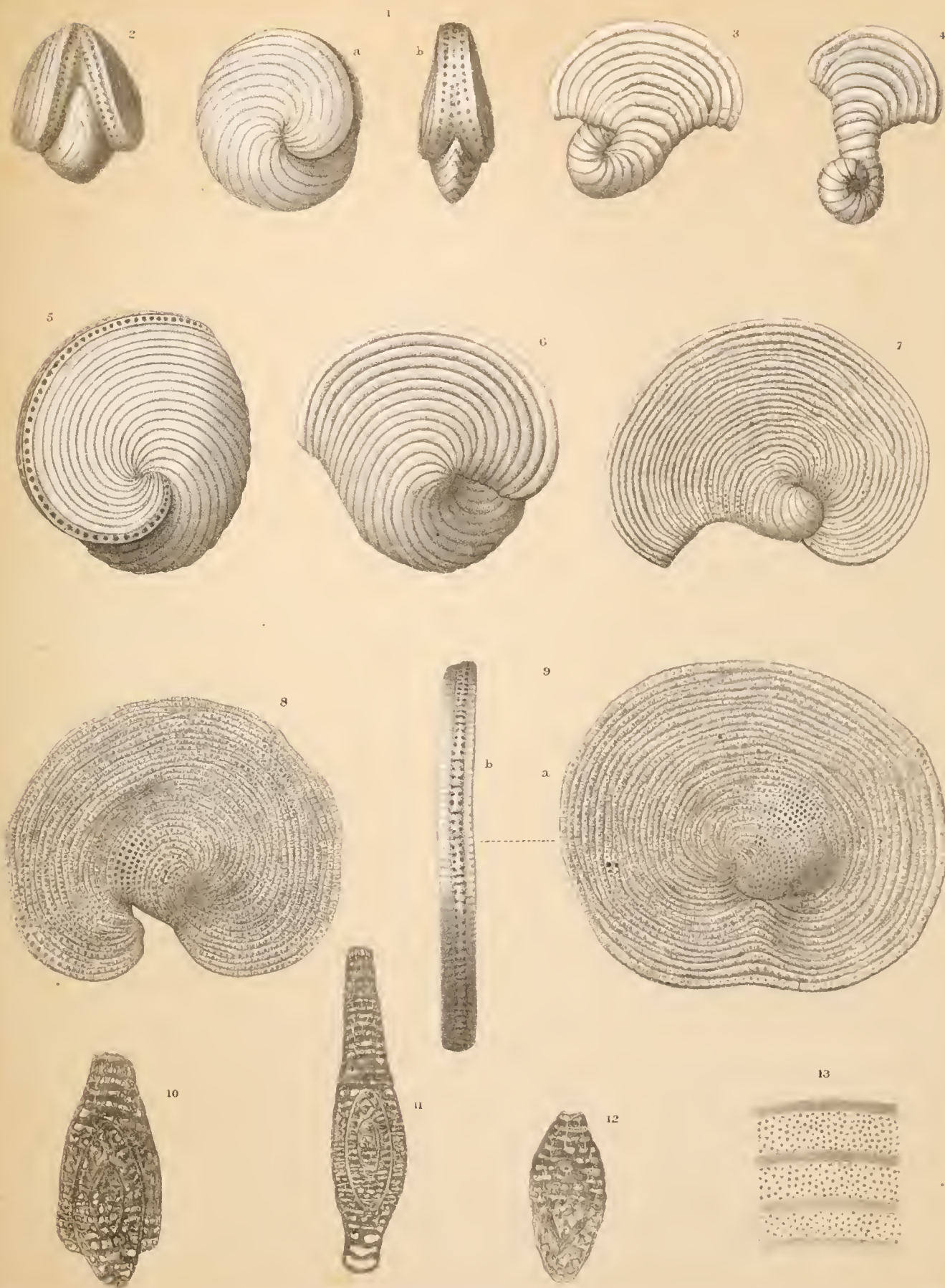




PLATE XV.



## PLATE XV.

### ORBITOLITES.

			Diam.	Page
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	Illustrating the various stages of growth.			
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	Fig. 7. Central portion of another specimen, viewed by transmitted light.			

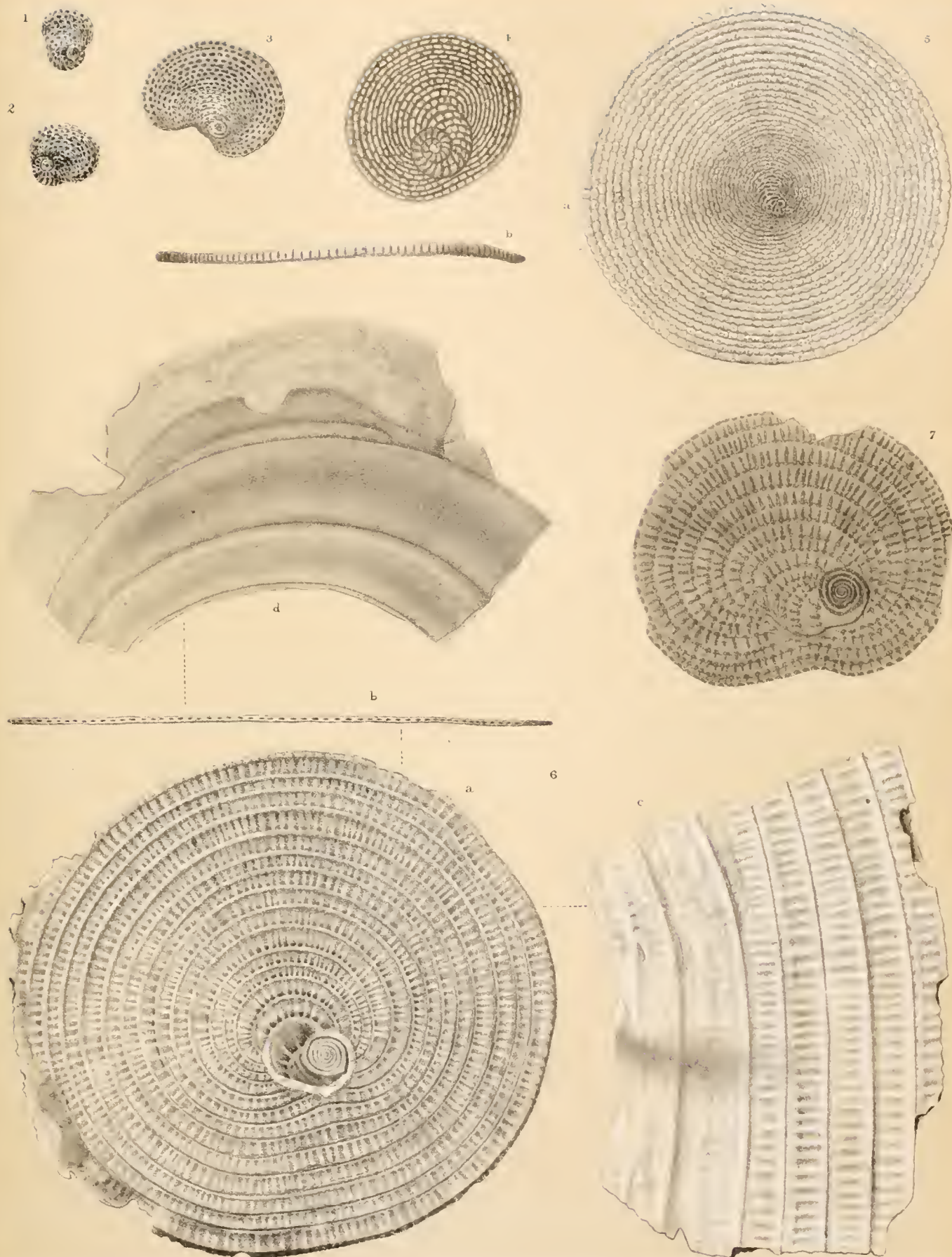




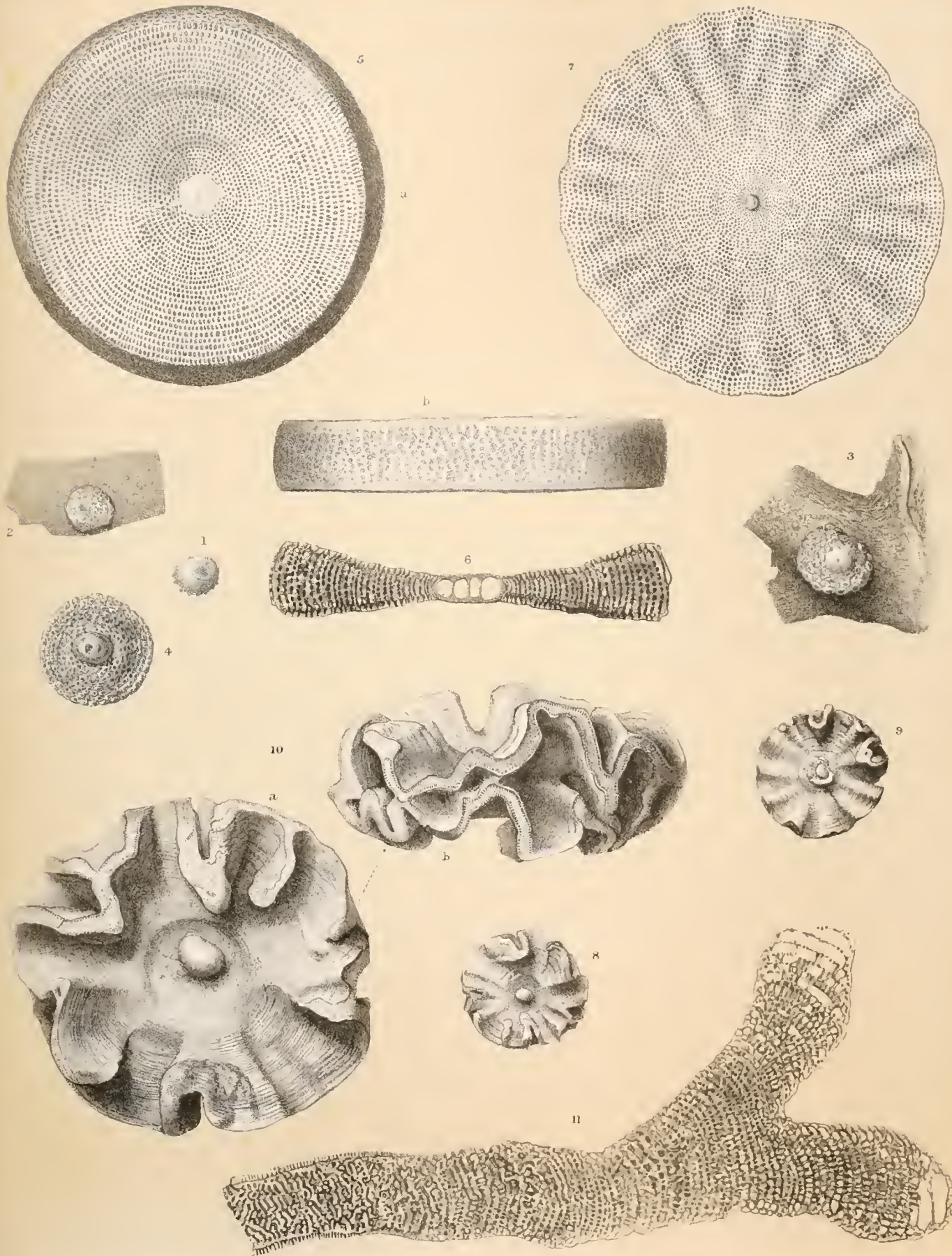
PLATE XVI.

## PLATE XVI.

### ORBITOLITES.

		Diam.	Page
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ORBITOLITES.





PLATE XVII.

## PLATE XVII.

### ORBITOLITES.—ALVEOLINA.

	Diam.	Page
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Fig. 13. <i>a</i> , Lateral aspect ; <i>b</i> , terminal aspect.		
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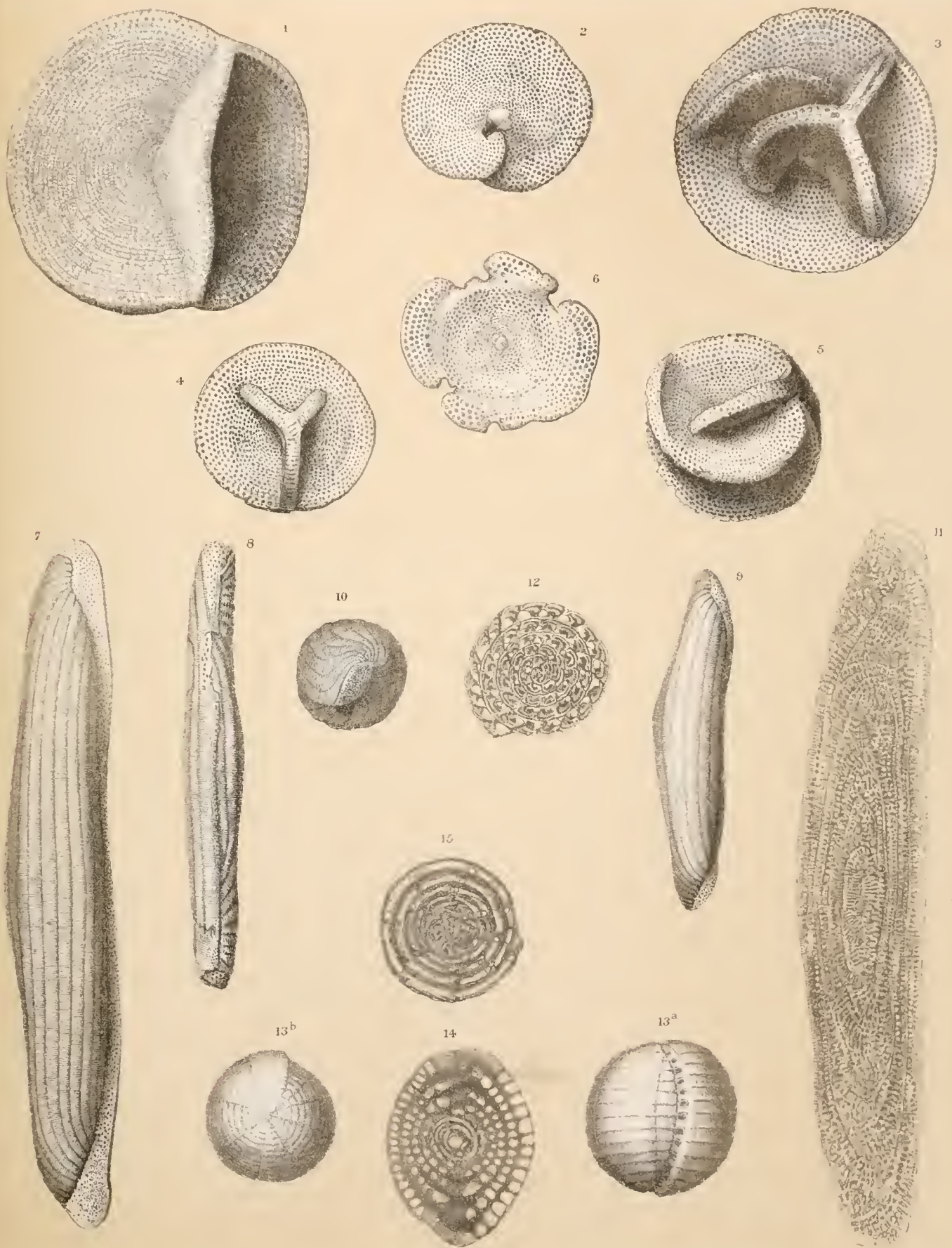




PLATE XVIII



# PLATE XVIII.

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Fig. 5. Sessile specimen,	×	40	
Fig. 6. Test cut so as to show the interior,	×	40	
Fig. 7. Section of the wall, showing the fitting together of the sand-grains,	×	40	
Fig. 8. Specimens adherent to each other,	×	40	
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Fig. 16. Polythalamous adherent specimen.			
Fig. 17. Fusiform specimen with two apertures, re- sembling a segment of the Carboniferous <i>Saccammina carteri</i> .			
„ 18, 19.— <i>Saccammina socialis</i> , n. sp.,	×	20	255



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PSAMMOSPHERA-SOROSPHERA-SACCAMMINA



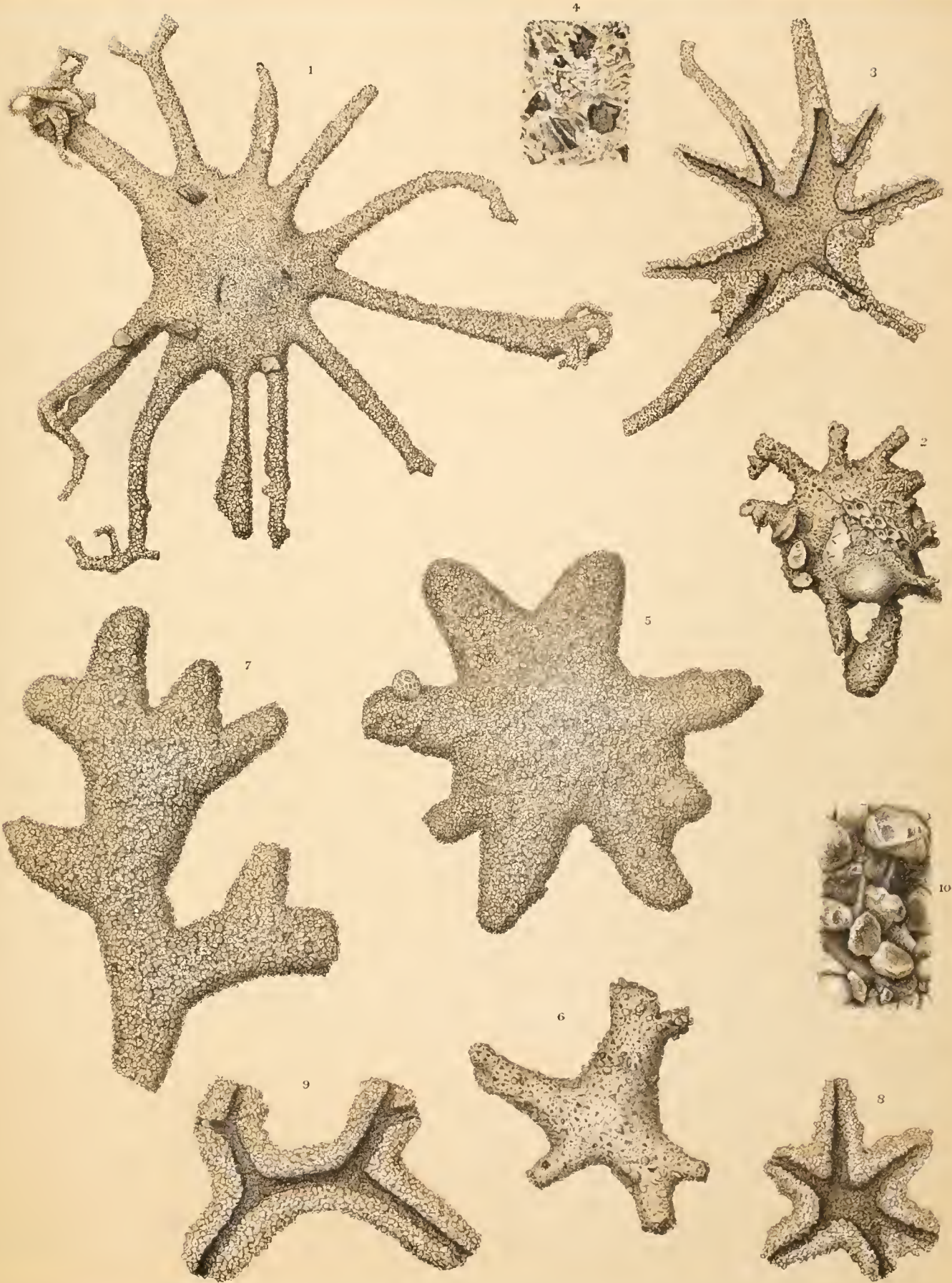
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## PLATE XIX.

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Fig. 10. Portion of the surface more highly magnified, to show the constituent sand-grains, . . . . .	× 100	





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ASTRORHIZA.

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PLATE XX.

## PLATE XX.

### ASTRORHIZA.

	Diam.	Page
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ASTRORHIZA.



PLATE XXI.



## PLATE XXI.

### RHABDAMMINA.

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RHABDAMMINA.

Hannan. 1890.





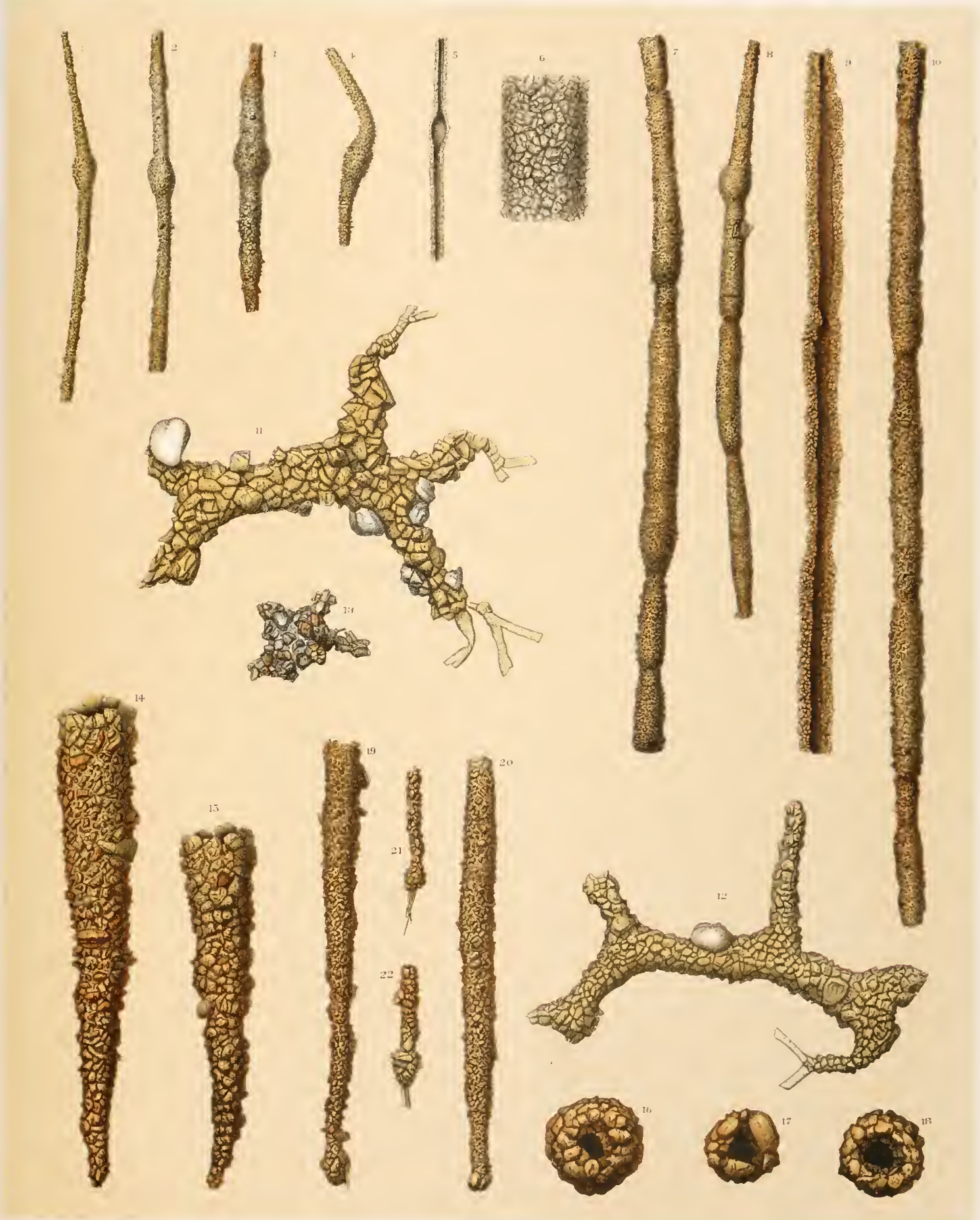
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## PLATE XXII.

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Figs. 1-4. Specimens illustrating the range of form, . . . . .	× 10	
Fig. 5. Test laid open to show the interior, . . . . .	10	
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„ 11-13.— <i>Rhabdammina cornuta</i> , Brady, . . . . .		270
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„ 14-18.— <i>Jaculella acuta</i> , Brady, . . . . .	× 12	255
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19-22.— <i>Jaculella obtusa</i> , Brady, . . . . .	× 12	256
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PLATE XXIII.

## PLATE XXIII.

### HYPERAMMINA.

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Fig. 5. Portion of the aboral end laid open, showing the primordial chamber and the thickness and texture of the walls, . . . . .	× 20	
Fig. 6. A similar specimen, . . . . .	× 10	
„ 4, 7-10.— <i>Hyperammina elongata</i> , Brady, . . . . .	× 10	257
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PLATE XXIV.



## PLATE XXIV.

### HYPERAMMINA.—MARSIPELLA.

	Diam.	Page
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., 20-22.— <i>Marsipella cylindrica</i> , Brady, . . . . .	× 15	265



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HYPERAMMINA - MARSIPELLA

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PLATE XXV.

# PLATE XXV.

## PILULINA.—TECHNITELLA.—STORTHOSPHERA.—PELOSINA.

		Diam.	Page
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	Fig. 1. <i>a</i> , Lateral aspect; figs. 1 <i>b</i> , 2, oral aspect, . . . . .	× 12	
	Fig. 3. Test laid open to show the thickness of the walls, and the smoothly finished internal cavity. . . . .	× 12	
	Fig. 4. A portion of the external surface, . . . . .	× 100	
	Fig. 5. Transverse section of the test, . . . . .	× 100	
	Fig. 6. Longitudinal section of the test, . . . . .	× 100	
„ 7.—	<i>Technitella melo</i> , Norman, . . . . .	× 50	246
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.		
„ 8-12.—	<i>Technitella legumen</i> , Norman, . . . . .		246
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	Fig. 9. Broken specimen, with collar-like aperture, . . . . .	× 40	
	Fig. 10. Lateral aspect, . . . . .	× 30	
	Fig. 11. Specimen with an incrustation of sand protecting the spicular test, . . . . .	× 25	
	Fig. 12. Surface of the spicular test more highly magnified, . . . . .	× 100	
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	Fig. 13. Large specimen somewhat imperfect at the oral end.		
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	Fig. 17. Specimen laid open to show the thickness of the wall, and the internal cavity.		
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	Fig. 20. Specimen laid open transversely to show the thickness of the wall, and the comparatively small internal cavity.		







PLATE XXVI.

## PLATE XXVI.

### PELOSINA.—HIPPOCREPINA.—BATHYSIPHON.

	Diam.	Page
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<p>„ 7-9.—<i>Pelosina variabilis</i>, Brady, . . . . .</p> <p>Figs. 7, 8. General aspect of the test.</p> <p>Fig. 9. Portion of a test laid open to show the thickness of the walls.</p>	× 9	235
<p>„ 10-14.—<i>Hippocrepina indivisa</i>, Parker, . . . . .</p> <p>Figs. 10, 11. Lateral aspect ; figs. 12, 13, oral end.</p> <p>Fig. 14. Test laid open longitudinally, showing the undivided cavity.</p>	× 45	325
<p>„ 15-20.—<i>Bathysiphon filiformis</i>, M. Sars, . . . . .</p> <p>Figs. 15, 16. General aspect of the test, . . . . .</p> <p>Fig. 17. Portion of a specimen laid open longitudinally, to show the structure of the walls and the nature of the internal cavity, . . . . .</p> <p>Fig. 18. Transverse section of the test, viewed by transmitted light, . . . . .</p> <p>Fig. 19. Longitudinal section of the wall, with a mass of adherent dark-coloured sarcode, . . . . .</p> <p>Fig. 20. Longitudinal section, more highly magnified, . . . . .</p>	<p>. . . . .</p> <p>× 3</p> <p>× 60</p> <p>× 60</p> <p>× 60</p> <p>× 200</p>	248









PLATE XXVII.

(ZOOLOGICAL CHALLENGER. EXPEDITION.—PART XXII.—1883.)—Y.

## PLATE XXVII.

### ASCHEMONELLA.

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	Figs. 1-10. Various specimens, more or less broken, . . .	× 15	
	Fig. 11. Test laid open, showing the tenuity of the walls, and the smooth interior, . . . . .	× 10	
„ 12-15.—	<i>Aschemonella ramuliformis</i> , n. sp., . . . . .	× 15	273
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PLATE XXVII A.



# PLATE XXVII. A.

## ASCHEMONELLA.—HALIPHYSEMA.—DENDROPHRYA.

			Diam.	Page
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	Fig. 1,	.	×	20
	Fig. 2,	.	×	12
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„ 4, 5.—	<i>Haliphysema tumanowiczii</i> , Bowerbank,	.	.	281
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	Fig. 5. Single specimen, showing the pseudo-polythalamous foot,	.	×	50
„ 6.—	<i>Haliphysema ramulosum</i> , Bowerbank,	.	×	20
		.		283
„ 7-9.—	<i>Dendrophrya erecta</i> , Strethill Wright,	.	.	239
	Fig. 7. × 25 diam.; fig. 8,	.	×	30
	Fig. 9. Apertural termination of one of the branches,	.	×	150
„ 10-12.—	<i>Dendrophrya radiata</i> , Strethill Wright,	.	.	238
	Figs. 10, 12. × 40 diam.; fig. 11,	.	×	45





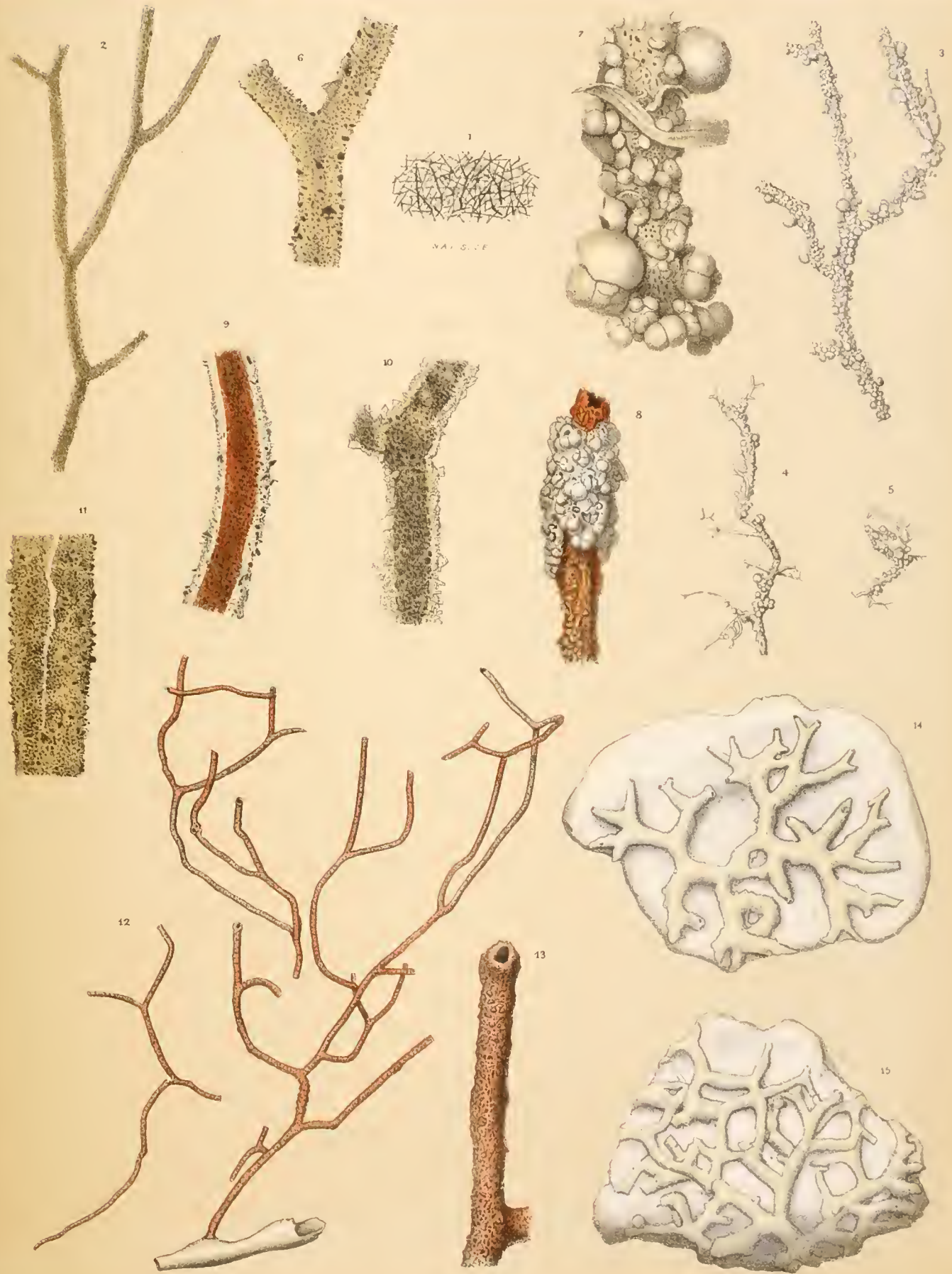
PLATE XXVIII.

## PLATE XXVIII.

### RHIZAMMINA.—HYPERAMMINA.—SAGENELLA.

	Diam.	Page
Figures 1-11.— <i>Rhizammina algaformis</i> , Brady, . . . . .		274
Figs. 1, 2, 6. Specimens from sandy bottom; figs. 3, 4, 5, 7, 8, from Globigerina ooze.		
Fig. 1. Portion of a tuft, . . . . .	Natural size.	
Figs. 2, 3, 4, 5. Incomplete specimens, . . . . .	× 8	
Figs. 6, 7. Fragments more highly magnified, . . . . .	× 40	
Fig. 8. Fragment with part of the arenaceous coating removed, showing the chitinous envelope underneath, . . . . .	× 15	
Fig. 9. Specimen from sandy bottom, after treatment with hydrochloric acid; mounted in Canada balsam, . . . . .	× 40	
Fig. 10. Specimen from Globigerina ooze, similarly treated, . . . . .	× 40	
Fig. 11. Specimen from sandy bottom, after treatment with solution of caustic potash; mounted in Canada balsam, . . . . .	× 40	
„ 12, 13.— <i>Hyperammina arborescens</i> , Norman, sp., . . . . .		262
Fig. 12. Specimen growing upon a Polyzoon, . . . . .	× 20	
Fig. 13. Terminal branch with aperture, . . . . .	× 100	
„ 14, 15.— <i>Sagenella frondescens</i> , Brady, . . . . .	× 10	278
Specimens growing on fragments of Nullipore.		





A. T. Hollick ad nat. del. et. lith.

Hanhart imp.

RHIZAMMINA, HYPERAMMINA, SAGENELLA.



PLATE XXIX.

## PLATE XXIX.

### RHIZAMMINA.—BOTELLINA.

	Diam.	Page
Figures 1-3.—Chitinous Rhizopod-tubes, probably related to <i>Rhizammima</i> , . . . . .	× 20	277
„ 4.—Similar organism, with sarcode filaments (filose pseudopodia ?) extended, . . . . .	× 30	278
„ 5-7.— <i>Rhizammima indivisa</i> , n. sp., . . . . .	× 12	277
„ 8-18.— <i>Botellina labyrinthica</i> , Brady, . . . . .	× 10	279
Figs. 8, 9. External aspect of the test.		
Figs. 10-15. Fragments laid open longitudinally, showing the terminal chamber, and the labyrinthic structure of the tubular portion.		
Figs. 16-18. Specimens broken transversely.		









PLATE XXX.

# PLATE XXX.

## REOPHAX.

		Diam.	Page
Figures 1-5.—	<i>Reophax difflugiiformis</i> , Brady, . . . . .	× 50	289
	Figs. 1, 2, 3 <i>a</i> , 4, 5. Lateral aspect ; 3 <i>b</i> , oral aspect.		
„ 6.—	<i>Reophax ampullacea</i> , Brady, . . . . .	× 50	290
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.		
„ 7-11.—	<i>Reophax fusiformis</i> , Williamson, sp., . . . . .	× 60	290
„ 12-17.—	<i>Reophax scorpiurus</i> , Montfort, . . . . .		291
	Fig. 12 <i>a</i> , 13. Lateral aspect; 12 <i>b</i> , oral aspect, . . . . .	× 30	
	Fig. 14. × 50 diam.; fig. 15, × 40; fig. 16, . . . . .	× 20	
	Fig. 17. Longitudinal section of a coarsely arenaceous test, . . . . .	× 30	
„ 18-20.—	<i>Reophax pilulifera</i> , n. sp., . . . . .		292
	Figs. 18-20. Lateral aspect, . . . . .	× 25	
	Fig. 19. Large terminal chamber with the cavity par- tially occupied by a smaller one, . . . . .	× 10	
„ 21, 22.—	<i>Reophax dentaliniformis</i> , Brady, . . . . .		293
	Fig. 21. × 35 diam.; fig. 22, . . . . .	× 40	
„ 23, 24.—	<i>Reophax bacillaris</i> , Brady, . . . . .		293
	Fig. 23. × 20 diam.; fig. 24, . . . . .	× 17	



LITUOLA (Reophax.)

Harshart imp.





PLATE XXXI.

## PLATE XXXI.

### REOPHAX.

	Diam.	Page
Figures 1-9.— <i>Reophax nodulosa</i> , Brady, . . . . .		294
Fig. 1. Large specimen, . . . . .	× 7	
Fig. 2. Somewhat smaller specimen, after having been completely decalcified with hydrochloric acid, . . . . .	× 7	
Figs. 3-8. Specimens of various forms and dimensions, . . . . .	× 10	
Fig. 9. Test laid open longitudinally to show the interior, . . . . .	× 10	
„ 10-15.— <i>Reophax guttifera</i> , Brady, . . . . .	× 50	295
Specimens in various stages of growth.		
„ 16, 17.— <i>Reophax spiculifera</i> , Brady, . . . . .	× 50	295
„ 18-22.— <i>Reophax distans</i> , Brady, . . . . .	× 15	296
„ 23-26.— <i>Reophax adunca</i> , Brady, . . . . .	× 30	296





PLATE XXXII.

(ZOOLOGICAL CHALLENGER, —PART XXII, —1883.)—V.



## PLATE XXXII.

### REOPHAX.—HAPLOSTICHE.—HAPLOPHRAGMIUM.

		Diam.	Page
Figures 1-4.—	<i>Reophax membranacea</i> , Brady, . . . . .	× 50	297
	Figs. 1, 2. Specimens mounted dry.		
	Fig. 4. Specimen mounted in Canada balsam and viewed by transmitted light.		
	Fig. 3. Specimen decalcified by hydrochloric acid, and mounted in Canada balsam.		
„ 5, 6.—	<i>Reophax sabulosa</i> , Brady, . . . . .	× 9	298
	Fig. 5. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect.		
	Fig. 6. Specimen laid open longitudinally, to show the interior.		
„ 7-9.—	<i>Reophax cylindrica</i> , n. sp., . . . . .	× 20	299
	Figs. 7 <i>a</i> , 8. Lateral aspect; <i>b</i> , oral aspect.		
	Fig. 9. Specimen laid open longitudinally, to show the interior.		
„ 10, 11.—	<i>Reophax findens</i> , Parker, . . . . .	× 40	299
	<i>a</i> , <i>a</i> , Lateral aspect; <i>b</i> , <i>b</i> , oral aspect.		
„ 12-18.—	<i>Haplostiche soldanii</i> , Jones and Parker, sp., . . . . .		318
	Fig. 12. Lateral aspect, . . . . .	× 12	
	Figs. 13, 14 <i>a</i> , 15. Lateral aspect; fig. 14 <i>b</i> , oral aspect, . . . . .	× 15	
	Fig. 16. Transverse fracture, showing the labyrinthic interior, . . . . .	× 15	
	Fig. 17. Longitudinal section of the test, . . . . .	× 15	
	Fig. 18. Transverse section, . . . . .	× 15	
„ 19-26.—	<i>Haplophragmium agglutinans</i> , d'Orbigny, sp., . . . . .		301
	Fig. 19. Lateral aspect, × 25; figs. 20, 24, do., . . . . .	× 40	
	Figs. 21-23. Lateral aspect, . . . . .	× 50	
	Fig. 25. Oral aspect, . . . . .	× 40	
	Fig. 26. Specimen laid open longitudinally, to show the interior, . . . . .	× 40	



A. Th. Holzhak ad nat. u. et. lith.

LITUOLA (Reophax, Haplostiche, Haplophragmium)

Haplophragmium



PLATE XXXIII.



## PLATE XXXIII.

### HAPLOPHRAGMIUM.

	Diam.	Page
Figures 1-4.— <i>Haplophragmium pseudospirale</i> , Williamson, sp., . Figs. 1, 2. Lateral aspect ; figs. 3, 4, oral aspect.	× 35	302
„ 5-12.— <i>Haplophragmium calcareum</i> , n. sp., . . . Figs. 5-9. Lateral aspect ; figs. 10, 11, oral aspect. Fig. 12. Horizontal section of the test.	× 18	302
„ 13-16.— <i>Haplophragmium tenuimargo</i> , Brady, . . . Figs. 13, 14. Lateral aspect ; fig. 15, oral aspect ; fig. 16, peripheral aspect.	× 25	303
„ 17-19.— <i>Haplophragmium cassis</i> , Parker, sp., . . . Figs. 17, 18. Lateral aspect ; fig. 19, peripheral aspect.	× 35	304
„ 20-25.— <i>Haplophragmium foliaceum</i> , Brady, . . . Figs. 20-23. Specimens in various stages of growth ; lateral aspect. Fig. 24. Specimen mounted in Canada balsam and viewed by transmitted light. Fig. 25. Peripheral aspect.	× 40	304
„ 26-28.— <i>Haplophragmium emaciatum</i> , n. sp., . . . Figs. 26, 27. Lateral aspect ; fig. 28, peripheral aspect.	× 25	305







PLATE XXXIV.

## PLATE XXXIV.

### HAPLOPHRAGMIUM.

		Diam.	Page
Figures 1-4.— <i>Haplophragmium fontinense</i> , Terquem, . . . . .	×	20	305
Figs. 1, 2, 3 <i>a</i> , 4. Lateral aspect ; 3 <i>b</i> , peripheral aspect.			
„ 5, 6.— <i>Haplophragmium rotulatum</i> , Brady, . . . . .	×	50	306
Figs. 5, 6. Lateral aspect ; <i>b</i> , <i>b</i> , peripheral aspect.			
„ 7-10, 14.— <i>Haplophragmium latidorsatum</i> , Bornemann, sp., . . . . .			307
Figs. 7 <i>a</i> , 8 <i>a</i> . Lateral aspect ; <i>b</i> , <i>b</i> , peripheral aspect,	×	20	
Fig. 9. Specimens built into the wall of an annelid-			
tube ; the lower test showing a cribrate aperture,	×	15	
Fig. 10. Horizontal section of the test.			
Fig. 14. Small compressed variety, occurring off Kandavu,	×	40	
„ 11-13.— <i>Haplophragmium scitulum</i> , Brady, . . . . .	×	40	308
Figs. 11 <i>a</i> , 12. Lateral aspect ; 11 <i>b</i> , peripheral aspect.			
Fig. 13. Horizontal section of the test.			
„ 15-18.— <i>Haplophragmium glomeratum</i> , Brady, . . . . .	×	100	309
Figs. 15, 16. Lateral aspect ; figs. 17, 18, peripheral aspect.			





A. T. Hollick ad nat. del. d. lith.

Hanhart imp.

LITUOLA, (Haplophragmium.)





PLATE XXXV.

# PLATE XXXV.

## HAPLOPHRAGMIUM.—PLACOPSILINA.

		Diam.	Page
Figures 1-5.—	<i>Haplophragmium canariense</i> , d'Orbigny, sp., .	.	310
	Figs. 1, 2 <i>a</i> , 3 <i>a</i> . Lateral aspect ; <i>b</i> , <i>b</i> , peripheral aspect,	× 50	
	Fig. 4. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect,	× 30	
	Fig. 5. Monstrous specimen, . . . . .	× 50	311
„ 6-8.—	<i>Haplophragmium nanum</i> , Brady, . . . . .	.	311
	Fig. 6. <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect,—typical form, . . . . .	× 120	
	Fig. 7. Superior aspect ; fig. 8, peripheral aspect,—irregularly built specimens, . . . . .	× 60	
„ 9.—	<i>Haplophragmium turbinatum</i> , Brady, . . . . .	× 40	312
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.		
„ 10, 11.—	<i>Haplophragmium globigeriniforme</i> , Parker and Jones, sp., . . . . .	× 25	312
	Fig. 10. <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.		
	Fig. 11. Adherent specimen.		
„ 12-15.—	<i>Haplophragmium aneeps</i> , n. sp., . . . . .	.	313
	Fig. 12. Superior aspect, . . . . .	× 25	
	Figs. 13-15. Lateral aspect, . . . . .	× 20	
„ 16, 17.—	<i>Placopsilina bulla</i> , Brady, . . . . .	× 20	315
	Fig. 16. Superior aspect ; fig. 17, lateral aspect.		
	Specimens growing adherent to fragments of <i>Rhabdammina</i> .		
„ 18, 19.—	<i>Placopsilina vesicularis</i> , Brady, . . . . .	× 12	316







PLATE XXXVI.

## PLATE XXXVI.

### PLACOPSILINA.—BDELLOIDINA.—THURAMMINA.

		Diam.	Page
Figures 1-3.—	<i>Placopsilina cenomana</i> , d'Orbigny, sp., . . . . .		315
	Fig. 1, . . . . .	× 15	
	Fig. 2, . . . . .	× 30	
	Fig. 3, . . . . .	× 50	
„ 4-6.—	<i>Bdelloidina aggregata</i> , Carter, . . . . .		319
	Figs. 4, 5. General aspect of the parasitic test, . . . . .	× 15	
	Fig. 6. Portion laid open to show the interior, . . . . .	× 30	
„ 7-18.—	<i>Thurammia papillata</i> , Brady, . . . . .		321
	Fig. 7. Globular specimen; fig. 8, oval specimen, . . . . .	× 30	
	Figs. 9, 10. Specimens with tubulated aperture, . . . . .	× 50	
	Fig. 11. Adherent test, . . . . .	× 50	
	Fig. 12. Specimen with an internal chamber, . . . . .	× 50	
	Figs. 13, 14. Internal or primordial chambers, outer tests removed, . . . . .	× 50	
	Fig. 15. Specimen formed of three adherent spheres, . . . . .	× 50	
	Figs. 16-18. Portions of specimens from different localities, mounted in Canada balsam; showing the variability of the test in point of minute structure, . . . . .	× 100	



LITUOLA (Placopsilina-Bdelloidina)-THURAMMINA.



PLATE XXXVII.



# PLATE XXXVII.

## THURAMMINA.—CYCLAMMINA.

		Diam.	Page
Figure 1.—	<i>Thurammina compressa</i> , Brady, . . . . .	× 50	324
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.		
„ 2–7.—	<i>Thurammina albicans</i> , Brady, . . . . .	.	323
	Figs. 2–5. Lateral aspect, . . . . .	× 50	
	Fig. 6. Specimen laid open, to show the thickness of the walls and the character of the internal cavity, . . . . .	× 50	
	Fig. 7. Section of the test, showing its minute structure, . . . . .	× 100	
„ 8–16.—	<i>Cyclammina cancellata</i> , Brady, . . . . .	.	351
	Figs. 8 <i>a</i> , 9 <i>a</i> , 10. Lateral aspect ; figs. 8 <i>b</i> , 9 <i>b</i> , 11, peripheral aspect, . . . . .	× 15	
	Figs. 12, 13. Specimens laid open horizontally to show the internal structure, . . . . .	× 15	
	Fig. 14. Horizontal section of the test viewed by transmitted light, . . . . .	× 15	
	Fig. 15. Part of a specimen laid open transversely, . . . . .	× 15	
	Fig. 16. Exterior with a portion of the imperforate coating scraped away, showing the tubulated structure immediately beneath, . . . . .	× 30	
„ 17–19.—	<i>Cyclammina orbicularis</i> , Brady, . . . . .	× 15	353
	Fig. 17. Specimen laid open transversely showing the internal structure.		
	Figs. 18 <i>a</i> , 19. Lateral aspect ; 18 <i>b</i> , peripheral aspect.		
„ 20–23.—	<i>Cyclammina pusilla</i> , Brady, . . . . .	.	353
	Figs. 20 <i>a</i> , 21. Lateral aspect ; 20 <i>b</i> , peripheral aspect, . . . . .	× 15	
	Fig. 22. Specimen laid open horizontally to show the interior, . . . . .	× 15	
	Fig. 23. Portion of the same more highly magnified, . . . . .	× 30	



After the ad nae del et al.

THURAMMINA-CYCLAMMINA.

Harbuck imp.



PLATE XXXVIII.

# PLATE XXXVIII.

## AMMODISCUS.

		Diam.	Page
Figures 1-3.—	<i>Ammodiscus incertus</i> , d'Orbigny, sp., . . . . .	.	330
	Fig. 1. <i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect, . . . . .	× 15	
	Fig. 2. Small specimen, . . . . .	× 25	
	Fig. 3. Test laid open horizontally, showing the spiral cavity and the relative thickness of the wall, . . . . .	× 15	
„ 4-6.—	<i>Ammodiscus tenuis</i> , Brady, . . . . .	.	332
	Fig. 4. Small specimen, . . . . .	× 25	
	Figs. 5 <i>a</i> , 6. Large examples, lateral aspect; 5 <i>b</i> , peripheral aspect, . . . . .	× 15	
„ 7-9.—	<i>Ammodiscus gordialis</i> , Jones and Parker, sp., . . . . .	× 70	333
„ 10-16.—	<i>Ammodiscus charoides</i> , Jones and Parker, sp., . . . . .	× 70	334
	Fig. 16. Section of the test.		
„ 17-19.—	<i>Ammodiscus shoneanus</i> , Siddall, sp., . . . . .	× 100	335
	<i>a, a</i> , Lateral aspect; <i>b, b</i> , oral aspect.		
„ 20-22.—	<i>Ammodiscus spectabilis</i> , Brady, . . . . .	× 12	336







PLATE XXXIX.

## PLATE XXXIX.

### HORMOSINA.

		Diam.	Page
Figures 1-6.—	<i>Hormosina globulifera</i> , Brady, . . . . .	× 15	326
	Figs. 1-4 <i>a</i> , Lateral aspect; 4 <i>b</i> , oral aspect.		
	Fig. 5. Anomalous two-chambered specimen.		
	Fig. 6. Fragment showing the aperture from the interior side.		
„ 7-9.—	<i>Hormosina ovicula</i> , Brady, . . . . .	× 15	327
	Figs. 7, 8 <i>a</i> , 9. Lateral aspect; 8 <i>b</i> , oral aspect.		
„ 10-13.—	<i>Hormosina monile</i> , Brady, . . . . .	× 10	328
„ 14-18.—	<i>Hormosina carpenteri</i> , Brady, . . . . .	× 10	327
	Fig. 18. Longitudinal section of the test.		
„ 19-23.—	<i>Hormosina normani</i> , Brady, . . . . .	× 10	329
	Fig. 23. Fragment showing a portion of the interior of two chambers with the apertures.		









PLATE XL.

## PLATE XL.

### TROCHAMMINA.

			Diam.	Page
Figures 1-3.—	<i>Trochammina proteus</i> , Karrer, . . . . .	×	25	341
„ 4-7.—	<i>Trochammina lituiformis</i> , Brady, . . . . .	×	20	342
„ 8, 9.—	<i>Trochammina conglobata</i> , n. sp., . . . . .	×	30	341
„ 10-12.—	<i>Trochammina coronata</i> , Brady, . . . . .	×	20	340
	Figs. 10, 11 <i>a</i> , Lateral aspect ; 11 <i>b</i> , peripheral aspect.			
	Fig. 12. Test laid open horizontally to show the interior.			
„ 13-16.—	<i>Trochammina trullissata</i> , Brady, . . . . .			342
	Figs. 13 <i>a</i> , 14 <i>a</i> . Lateral aspect ; <i>b</i> , <i>b</i> , peripheral aspect,	×	30	
	Fig. 15. Lateral aspect, . . . . .	×	50	
	Fig. 16. Inner surface of the test, . . . . .	×	60	
„ 17, 18.—	<i>Trochammina ringens</i> , Brady, . . . . .			343
	Fig. 17. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect, . . . . .	×	45	
	Fig. 18. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect, . . . . .	×	30	
„ 19-23.—	<i>Trochammina galeata</i> , Brady, . . . . .	×	50	344
	Figs. 19-22. Lateral aspect ; fig. 23, peripheral aspect.			







PLATE XLI.

# PLATE XLI.

## TROCHAMMINA.—CARTERINA.—WEBBINA.

		Diam.	Page
Figures 1, 2.—	<i>Trochammina pauciloculata</i> , Brady, . . . . .	× 50	344
	<i>a, a</i> , Superior lateral aspect ; <i>b, b</i> , inferior lateral aspect ; <i>c, c</i> , peripheral aspect.		
„ 3.—	<i>Trochammina squamata</i> , Jones and Parker, . . . . .	× 50	337
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.		
„ 4.—	<i>Trochammina inflata</i> , Montagu, sp., . . . . .	× 50	338
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.		
„ 5, 6.—	<i>Trochammina nitida</i> , Brady, . . . . .	× 50	339
	Figs. 5 <i>a</i> , 6. Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peri- pheral aspect.		
„ 7–10.—	<i>Carterina spiculotesta</i> , Carter, sp., . . . . .		346
	Fig. 7 <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect, . . . . .	× 50	
	Fig. 8. Young specimen, . . . . .	× 50	
	Figs. 9, 10. Fragments of the test mounted in Canada balsam, showing the form and arrangement of the spicules, . . . . .	× 100	
„ 11.—	<i>Webbina hemisphaerica</i> , Jones, Parker, and Brady, . . . . .	× 25	350
„ 12–16.—	<i>Webbina clavata</i> , Jones and Parker, . . . . .	× 25	349
	Figs. 12, 13. Adherent specimens.		
	Fig. 14. Small specimen with orifice on the superior surface.		
	Fig. 15. Inferior aspect, showing the cavity of the test.		
	Fig. 16. Long tubular neck, adherent to <i>Globigerina</i> .		





PLATE XLII.

(ZOOLOG. CHALL. EXP. — PART XXII. — 1883.) — Y.



## PLATE XLII.

### TEXTULARIA.

		Diam.	Page
Figures 1-5.—	<i>Textularia folium</i> , Parker and Jones, . . . . .	× 60	357
	Figs. 1-4. Lateral aspect ; <i>b</i> , oral aspect. Fig. 5. Double specimen.		
„ 6.—	<i>Textularia inconspicua</i> , n. sp., . . . . .	× 70	357
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect ; <i>c</i> , aboral aspect.		
„ 7.—	<i>Textularia jugosa</i> , n. sp., . . . . .	× 70	358
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		
„ 8-12.—	<i>Textularia quadrilatera</i> , Schwager, . . . . .	× 35	358
	Figs. 8 <i>a</i> , 9, 10. Lateral aspect ; figs. 8 <i>b</i> , 11, 12, peripheral aspect.		
„ 13, 14.—	<i>Textularia concava</i> , Karrer, sp., . . . . .	× 35	360
	<i>a, a</i> , Lateral aspect ; <i>b, b</i> , oral aspect ; <i>c</i> , peripheral aspect.		
„ 15, 16.—	<i>Textularia carinata</i> , d'Orbigny, . . . . .	× 30	360
	Figs. 15, 16. Lateral aspect ; <i>b</i> , oral aspect.		
„ 17, 18.—	<i>Textularia sagittula</i> , Defrance, . . . . .	× 35	361
	Figs. 17, 18 <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect ; <i>c</i> , peripheral aspect.		
„ 19-22.—	<i>Textularia sagittula</i> , var. <i>fistulosa</i> , nov., . . . . .	× 25	362
	Figs. 19, 20. Lateral aspect ; figs. 21, 22, peripheral aspect.		
„ 23, 24.—	<i>Textularia rugosa</i> , Reuss, sp., . . . . .	× 25	363
	Figs. 23 <i>a</i> , 24. Lateral aspect ; 23 <i>b</i> , oral aspect.		
„ 25-29.—	<i>Textularia siphonifera</i> , Brady, . . . . .	× 30	362
	Figs. 25-28. Lateral aspect ; <i>b</i> , oral aspect. Fig. 29. Transverse section of the test.		



T. Hollick, ad nat. del. et lith.

TEXTULARIA

Herbert unsp.



PLATE XLIII.

# PLATE XLIII.

## TEXTULARIA.

			Diam.	Page
Figures 1-3.—	<i>Textularia agglutinans</i> , d'Orbigny, . . . . .	×	25	363
	Figs. 1, 2. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.			
	Fig. 3. Specimen with porous aperture, oral aspect.			
„ 4.—	<i>Textularia agglutinans</i> , var. <i>porrecta</i> , nov., . . . . .	×	25	364
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.			
„ 5-8.—	<i>Textularia luculenta</i> , n. sp., . . . . .	×	20	364
	Fig. 5. Lateral aspect ; figs. 6, 7, oral aspect.			
	Fig. 8. Specimen laid open longitudinally, showing the change of the position of the aperture in the later segments.			
„ 9. 10.—	<i>Textularia gramen</i> , d'Orbigny, . . . . .			365
	Fig. 9. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect, . . . . .	×	30	
	Fig. 10. <i>a</i> , Lateral aspect ; <i>c</i> , peripheral aspect, . . . . .	×	18	
„ 11.—	<i>Textularia concava</i> , Karrer, sp., . . . . .	×	30	360
	<i>a</i> , Lateral aspect ; <i>c</i> , peripheral aspect.			
„ 12.—	<i>Textularia agglutinans</i> , deformed specimen, with traces of longitudinal costæ. . . . .	×	25	364
„ 13, 14.—	<i>Textularia conica</i> , d'Orbigny, . . . . .	×	40	365
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect ; <i>c</i> , peripheral aspect ; <i>d</i> , aboral aspect.			
„ 15-19.—	<i>Textularia trochus</i> , d'Orbigny, . . . . .			366
	Figs. 15 <i>a</i> , 16. Lateral aspect ; figs. 15 <i>d</i> , 18, aboral aspect, . . . . .	×	40	
	Fig. 17. <i>a</i> , Lateral aspect ; figs. 17 <i>b</i> , 19, oral aspect, . . . . .	×	25	





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TEXTULARIA

Hanhart imp.



PLATE XLIV.

# PLATE XLIV.

## TEXTULARIA.—BIGENERINA.

		Diam.	Page
Figures 1-3.—	<i>Textularia trochus</i> , d'Orbigny, . . . . .	.	366
	Fig. 1. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect; fig. 2, peripheral aspect, . . . . .	× 35	
	Fig. 3. Longitudinal section, showing the labyrinthic structure of the interior, . . . . .	× 25	
„ 4, 5.—	<i>Textularia turris</i> , d'Orbigny, . . . . .	.	366
	Fig. 4. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect, . . . . .	× 18	
	Fig. 5. Peripheral aspect, . . . . .	× 15	
„ 6-8.—	<i>Textularia barrettii</i> , Jones and Parker, . . . . .	.	367
	Fig. 6. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect; <i>c</i> , peripheral aspect, . . . . .	× 18	
	Fig. 7. Longitudinal section, showing the labyrinthic interior, . . . . .	× 20	
	Fig. 8. Test fractured transversely, . . . . .	× 30	
„ 9-13.—	<i>Textularia aspera</i> , Brady, . . . . .	× 20-25	367
	Fig. 9. Specimens growing upon a fragment of <i>Rhabdammina</i> .		
	Figs. 10 <i>a</i> , 11, 12 <i>a</i> , 13. Lateral aspect; <i>b</i> , oral aspect.		
„ 14-18.—	<i>Bigenerina nodosaria</i> , d'Orbigny, . . . . .	× 35	369
	Figs. 14, 15. Lateral aspect; figs. 16, 17, oral aspect.		
	Fig. 18. Longitudinal section of the test.		
„ 19-24.—	<i>Bigenerina digitata</i> , d'Orbigny, . . . . .	.	370
	Figs. 19, 20, 21. Lateral aspect; fig. 22, oral aspect, . . . . .	× 35	
	Fig. 23. Section of the wall, showing the arenaceous structure, . . . . .	× 60	
	Fig. 24. Longitudinal section of the test, . . . . .	× 35	









PLATE XLV.

# PLATE XLV.

## BIGENERINA.—PAVONINA.—SPIROPLECTA.

		Diam.	Page
Figures 1-4.—	<i>Bigenerina capreolus</i> , d'Orbigny, sp., . . . . .	× 20	372
	Figs. 1 <i>a</i> , 2. Adult specimens, lateral aspect ; 1 <i>b</i> , oral aspect.		
	Fig. 3. Young specimen, lateral aspect ; fig. 4, oral aspect.		
„ 5-8.—	<i>Bigenerina pennatula</i> , Batsch, sp., . . . . .	× 20	373
	Figs. 5, 6, 7. Lateral aspect ; fig. 8, oral aspect.		
„ 9-16.—	<i>Bigenerina robusta</i> , Brady, . . . . .	× 14	371
	Figs. 9, 10. Lateral aspect ; figs. 11, 12, oral aspect.		
	Fig. 13. Specimen laid open longitudinally to show the interior.		
	Fig. 14. Test fractured transversely.		
	Figs. 15, 16. Monstrous specimens, showing different forms of aperture.		
„ 17-21.—	<i>Paronina flabelliformis</i> , d'Orbigny, . . . . .		374
	Fig. 17. Lateral aspect, . . . . .	× 50	
	Figs. 18, 19. Lateral aspect ; figs. 20, 21, oral aspect, . . . . .	× 60	
„ 22, 23.—	<i>Spiroplecta annectens</i> , Parker and Jones, . . . . .	× 60	376
	Figs. 22, 23 <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		
„ 24.—	<i>Spiroplecta americana</i> , Ehrenberg, . . . . .	× 60	376
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		
„ 25-27.—	<i>Spiroplecta biförmis</i> , Parker and Jones, sp., . . . . .		376
	Fig. 25. Lateral aspect, . . . . .	× 100	
	Figs. 26 <i>a</i> , 27. Lateral aspect ; 26 <i>b</i> , oral aspect, . . . . .	× 80	



TEXTULARIA Bigenium Pazona Spirople





PLATE XLVI.

# PLATE XLVI.

## GAUDRYINA.—CHRYSLIDINA.

		Diam.	Page
Figures 1-4.—	<i>Gaudryina pupoides</i> , d'Orbigny, . . . . .	× 30	378
	Figs. 1, 2 <i>a</i> , 4 <i>a</i> . Lateral aspect; fig. 2 <i>b</i> , oral aspect; figs. 3, 4 <i>b</i> , peripheral aspect.		
„ 5, 6.—	<i>Gaudryina pupoides</i> , var. <i>chilostoma</i> , Reuss, . . . . .		379
	Fig. 5. <i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect, . . . . .	× 25	
	Fig. 6. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect, . . . . .	× 40	
„ 7.—	<i>Gaudryina scabra</i> , n. sp., . . . . .	× 20	381
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect.		
„ 8-11.—	<i>Gaudryina baccata</i> , Schwager, . . . . .		379
	Figs. 8, 10. Lateral aspect; fig. 9, peripheral aspect, . . . . .	× 20	
	Fig. 11. Portion of a specimen with the sutural depressions bridged over at intervals. . . . .	× 60	
„ 12.—	<i>Gaudryina filiformis</i> , Berthelin, . . . . .	× 50	380
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect; <i>c</i> , oral aspect.		
„ 13.—	<i>Gaudryina subrotundata</i> , Schwager, . . . . .	× 20	380
	<i>a</i> , Lateral aspect; <i>b</i> , peripheral aspect; <i>c</i> , oral aspect.		
„ 14-16.—	<i>Gaudryina rugosa</i> , d'Orbigny, . . . . .		381
	Fig. 14. Lateral aspect, . . . . .	× 35	
	Fig. 15. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect, . . . . .	× 20	
	Fig. 16. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect, . . . . .	× 25	
„ 17-19.—	<i>Gaudryina siphonella</i> , Reuss, . . . . .	× 40	382
	Figs. 17 <i>a</i> , 18, 19. Lateral aspect; 17 <i>b</i> , oral aspect.		
„ 20, 21.—	<i>Chrysalidina dimorpha</i> , Brady, . . . . .	× 70	388
	Figs. 20, 21 <i>a</i> . Lateral aspect; <i>b</i> , oral aspect.		



TEXTULARIA, Gaudryina Chrysalidina



PLATE XLVII.



# PLATE XLVII.

## VERNEUILINA.

		Diam.	Page
Figures 1-3.—	<i>Verneuilina spinulosa</i> , Reuss, . . . . .	× 70	384
	Figs. 1 <i>a</i> , 2, 3. Lateral aspect ; 1 <i>b</i> , oral aspect.		
„ 4-7.—	<i>Verneuilina pygmaea</i> , Egger, sp., . . . . .		385
	Figs. 4, 6, Lateral aspect, . . . . .	× 35	
	Fig. 5. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect. . . . .	× 25	
	Fig. 7. Section of the shell, showing its finely arena- ceous structure, . . . . .	× 120	
„ 8-14.—	<i>Verneuilina propinqua</i> , n. sp., . . . . .		387
	Figs. 8, 9. Lateral aspect, . . . . .	× 20	
	Fig. 10. Lateral aspect ; fig. 11, oral aspect, . . . . .	× 14	
	Fig. 12. Transverse section of the test.		
	Figs. 13, 14. Adherent specimens, . . . . .	× 20	
„ 15-17.—	<i>Verneuilina polystropha</i> , Reuss, sp., . . . . .	× 60	386
	Figs. 15, 16. Lateral aspect ; fig. 17, oral aspect.		
„ 18-20.—	<i>Verneuilina triquetra</i> , Münster, sp., . . . . .		383
	Fig. 18. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect, . . . . .	× 14	
	Figs. 19, 20 <i>a</i> . Lateral aspect ; <i>b</i> , oral aspect, . . . . .	× 20	
„ 21-24.—	<i>Verneuilina variabilis</i> , n. sp., . . . . .	× 14	385
	<i>a</i> , <i>a</i> , <i>a</i> . Lateral aspect of specimens of various forms ; <i>b</i> , <i>b</i> , <i>b</i> , oral aspect of the same.		





PLATE XLVIII.

# PLATE XLVIII.

## CLAVULINA.

		Diam.	Page
Figures 1-13.— <i>Clavulina communis</i> , d'Orbigny, . . . . .			394
Figs. 1, 2. Lateral aspect ; fig. 6, oral aspect, . . . . .	×	25	
Fig. 3. Lateral aspect, . . . . .	×	30	
Fig. 4. Arrested specimen, . . . . .	×	30	
Fig. 5. Monstrous specimen, . . . . .	×	25	
Figs. 7, 8. Longitudinal sections of the test, . . . . .	×	30	
Figs. 9, 10. Long specimens, lateral aspect ; fig. 11, oral aspect, . . . . .	×	15	
Fig. 12. Similar specimen laid open to show the interior, . . . . .	×	15	
Fig. 13. Portion of a longitudinal section more highly magnified, showing the minute structure of the test, . . . . .	×	100	
„ 14-18.— <i>Clavulina parisiensis</i> , d'Orbigny, . . . . .			395
Figs. 14, 15. Lateral aspect ; fig. 16, oral aspect, . . . . .	×	18	
Figs. 17, 18 <i>a</i> . Lateral aspect ; <i>b</i> , oral aspect, . . . . .	×	30	
„ 19-21.— <i>Clavulina parisiensis</i> , var. <i>humilis</i> , nov., . . . . .	×	40	395
Figs. 19, 20, 21 <i>a</i> . Lateral aspect ; <i>b</i> , oral aspect. . . . .			
„ 22-24.— <i>Clavulina angularis</i> , d'Orbigny, . . . . .	×	35	396
Figs. 22, 23, 24 <i>a</i> . Lateral aspect ; <i>b</i> , oral aspect. . . . .			
„ 25-31.— <i>Clavulina angularis</i> , var. <i>difformis</i> , nov., . . . . .	×	40	396
Figs. 25-27. Lateral aspect ; figs. 28-31, oral aspect. . . . .			
„ 32-38.— <i>Clavulina cylindrica</i> , Hantken. . . . .			396
Figs. 32-35. Lateral aspect ; figs. 36, 37, oral aspect, . . . . .	×	20	
Fig. 38. Longitudinal section, showing the minute structure of the test and the arrangement of the chambers, . . . . .	×	15	





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VALVULINA

Harlan



PLATE XLIX.

# PLATE XLIX.

## TRITAXIA.—VALVULINA.

		Diam.	Page
Figures 1-7.—	<i>Tritaxia caperata</i> , Brady,	.	390
	Figs. 1 <i>a</i> , 2. Adult specimens, lateral aspect ; 1 <i>b</i> , oral aspect,	×	16
	Fig. 3 <i>a</i> , Young specimen, lateral aspect ; <i>b</i> , oral aspect,	×	16
	Fig. 4. Specimen laid open longitudinally ; fig. 5, specimen broken transversely ;—showing the labyrinthic interior,	×	16
	Fig. 6. Longitudinal section of the test,	×	30
	Fig. 7. Portion of the outer wall of the same more highly magnified, showing the pore-canals,	×	120
„ 8, 9.—	<i>Tritaxia tricarinata</i> , Reuss,	×	35
	Figs. 8 <i>a</i> , 9. Lateral aspect ; <i>b</i> , oral aspect.		389
„ 10, 11.—	<i>Tritaxia indiscreta</i> , Brady,	×	25
	Figs. 10 <i>a</i> , 11. Lateral aspect ; 10 <i>b</i> , oral aspect.		389
„ 12.—	<i>Tritaxia lepida</i> , Brady,	×	80
	<i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.		389
„ 13, 14.—	<i>Valvulina fusca</i> , Williamson sp.,	.	392
	Fig. 13. <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect,	×	50
	Fig. 14. Adherent specimen,	×	40
„ 15, 16.—	<i>Valvulina conica</i> , Parker and Jones,	.	392
	Fig. 15. <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect,	×	50
	Fig. 16. Colony of specimens adherent to the test of <i>Saccammina spherica</i> ,	×	40









PLATE L.

# PLATE L.

## BULIMINA.

				Diam.	Page
Figures 1-4.—	<i>Bulimina elegans</i> , d'Orbigny,	.	.	.	398
	Fig. 1. <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect,	.	.	×	60
	Figs. 2-4. Lateral aspects,	.	.	×	50
„ 5, 6.—	<i>Bulimina elegans</i> , var <i>exilis</i> , nov.,	.	.	×	60
	Figs. 5 <i>a</i> , 6. Lateral aspect ; <i>b</i> , oral aspect.				399
„ 7-10.—	<i>Bulimina pyrula</i> , d'Orbigny,	.	.	.	399
	Figs. 7 <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect,	.	.	×	40
	Figs. 8, 9, 10. Lateral aspect,	.	.	×	50
„ 11, 12.—	<i>Bulimina pyrula</i> , var. <i>spinescens</i> , nov.,	.	.	×	60
	Lateral aspects.				400
„ 13.—	<i>Bulimina ovata</i> , d'Orbigny,	.	.	×	50
	Lateral aspects.				400
„ 14.—	<i>Bulimina affinis</i> , d'Orbigny,	.	.	×	50
	Lateral aspects.				400
„ 15.—	<i>Bulimina pupoides</i> , d'Orbigny,	.	.	×	45
	Lateral aspects.				400
„ 16.—	<i>Bulimina subcylindrica</i> , Brady,	.	.	×	80
	Lateral aspects.				404
„ 17, 18.—	<i>Bulimina subteres</i> , Brady,	.	.	.	403
	Lateral aspects ; fig. 17, × 60 ;—fig. 18,	.	.	×	80
„ 19.—	<i>Bulimina declivis</i> , Reuss,	.	.	×	70
	Lateral aspects.				404
„ 20-22.—	<i>Bulimina elegantissima</i> , d'Orbigny,	.	.	×	80
	Lateral aspects.				402
„ 23, 24.—	<i>Bulimina elegantissima</i> , var. <i>seminuda</i> , Terquem,	.	.	×	80
	Lateral aspects.				403

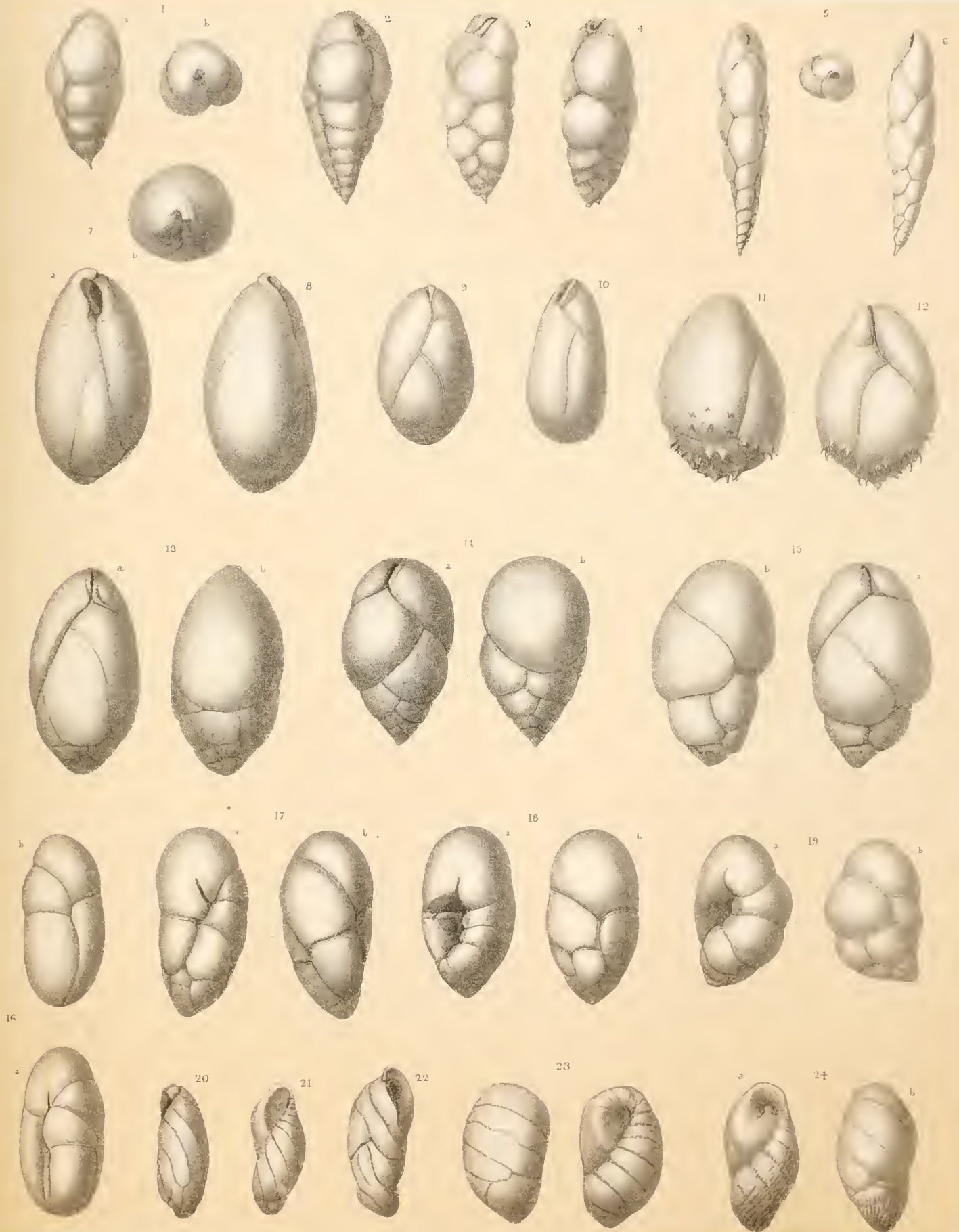






PLATE LI.

## PLATE II.

### BULIMINA.—PLEUROSOMELLA.

			Diam.	Page
Figure	1.— <i>Bulimina elongata</i> , d'Orbigny, . . . .	×	70	401
„	2.—Intermediate specimen, with characters approaching those of <i>Bulimina orata</i> , . . . .	×	80	401
„	3-5.— <i>Bulimina marginata</i> , d'Orbigny, . . . . Figs. 3, 4, 5. Lateral aspect ; <i>c</i> , oral aspect.	×	80	405
„	6.— <i>Bulimina subornata</i> , Brady, . . . . Lateral aspects.	×	80	402
„	7-9.— <i>Bulimina aculeata</i> , d'Orbigny, . . . . Figs. 7, 8, 9. Lateral aspects ; <i>c</i> , oral aspect.	×	60	406
„	10-13.— <i>Bulimina inflata</i> , Seguenza, . . . . Figs. 10, 11, 12, 13. Lateral aspects ; <i>c</i> , oral aspect.	×	60	406
„	14, 15.— <i>Bulimina rostrata</i> , n. sp., . . . . Figs. 14, 15. Lateral aspects ; <i>c</i> , oral aspect.	×	80	408
„	16, 17.— <i>Bulimina williamsoniana</i> , Brady, . . . . Figs. 16 <i>a</i> , <i>b</i> , 17. Lateral aspects ; <i>c</i> , oral aspect.	×	80	408
„	18, 19.— <i>Bulimina buchiana</i> , d'Orbigny, . . . . Figs. 18, 19. Lateral aspects ; <i>c</i> , oral aspect.	×	80	407
„	20.— <i>Pleurostomella brevis</i> , Schwager, . . . . <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect.	×	40	411
„	21.— <i>Pleurostomella rapa</i> , Gümbel, . . . . <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect.	×	60	411
„	22, 23.— <i>Pleurostomella alternans</i> , Schwager, . . . .			412
	Fig. 22. <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect, . . . .	×	70	
	Fig. 23. <i>a</i> , Peripheral aspect ; <i>b</i> , lateral aspect, . . . .	×	60	





PLATE LII.



# PLATE LII.

## VIRGULINA.—PLEUROSATOMELLA.—BOLIVINA.

				Diam.	Page	
Figures 1-3.—	<i>Virgulina schreibersiana</i> , Czjzek,	.	.	×	70	414
	Figs. 1, 2, 3, Lateral aspects ; <i>c</i> , oral aspect.					
„ 4, 5.—	<i>Virgulina pauciloculata</i> , n. sp.,	.	.	×	80	414
	<i>a</i> , <i>b</i> , Lateral aspects ; <i>c</i> , oral aspect.					
„ 6.—	<i>Virgulina texturata</i> , n. sp.,	.	.	×	40	415
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.					
„ 7-11.—	<i>Virgulina subsquamosa</i> , Egger,	.	.	.	.	415
	Figs. 7-9. Various lateral aspects ; <i>c</i> , oral aspect,	.	.	×	50	
	Figs. 10, 11. Various lateral aspects,	.	.	×	70	
„ 12, 13.—	<i>Pleurostomella subnodosa</i> , Reuss,	.	.	×	50	412
	Figs. 12, 13. Lateral aspects ; <i>c</i> , oral aspect.					
„ 14-17.—	<i>Virgulina subdepressa</i> , n. sp.,	.	.	×	40	416
	Various lateral aspects.					
„ 18, 19.—	<i>Bolivina punctata</i> , d'Orbigny,	.	.	×	60	417
	Figs. 18, 19. Lateral aspect ; <i>c</i> , oral aspect.					
„ 20, 21.—	<i>Bolivina dilatata</i> , Reuss,	.	.	×	70	418
	Figs. 20, 21. Lateral aspect ; <i>c</i> , oral aspect.					
„ 22.—	<i>Bolivina porrecta</i> , Brady,	.	.	×	50	418
	<i>a</i> , <i>b</i> , Lateral aspects ; <i>c</i> , oral aspect.					
„ 23-25.—	<i>Bolivina textilaroides</i> , Reuss,	.	.	×	70	419
	Figs. 23, 24, 25. Lateral aspects ; <i>c</i> , oral aspect.					
„ 26-28.—	<i>Bolivina limbata</i> , Brady,	.	.	×	50	419
	Figs. 26, 27, 28. Lateral aspects ; <i>c</i> , oral aspect.					
„ 29.—	<i>Bolivina tenuis</i> , Brady,	.	.	×	80	419
	Fig. 29. Lateral aspect ; <i>c</i> , oral aspect.					
„ 30.—	<i>Bolivina nitida</i> , n. sp.,	.	.	×	80	420
	Lateral aspects.					
„ 31-34.—	<i>Bolivina tortuosa</i> , Brady,	.	.	×	70	420
	Figs. 31, 32, 33, 34. Lateral aspects ; <i>c</i> , <i>c</i> , oral aspect.					





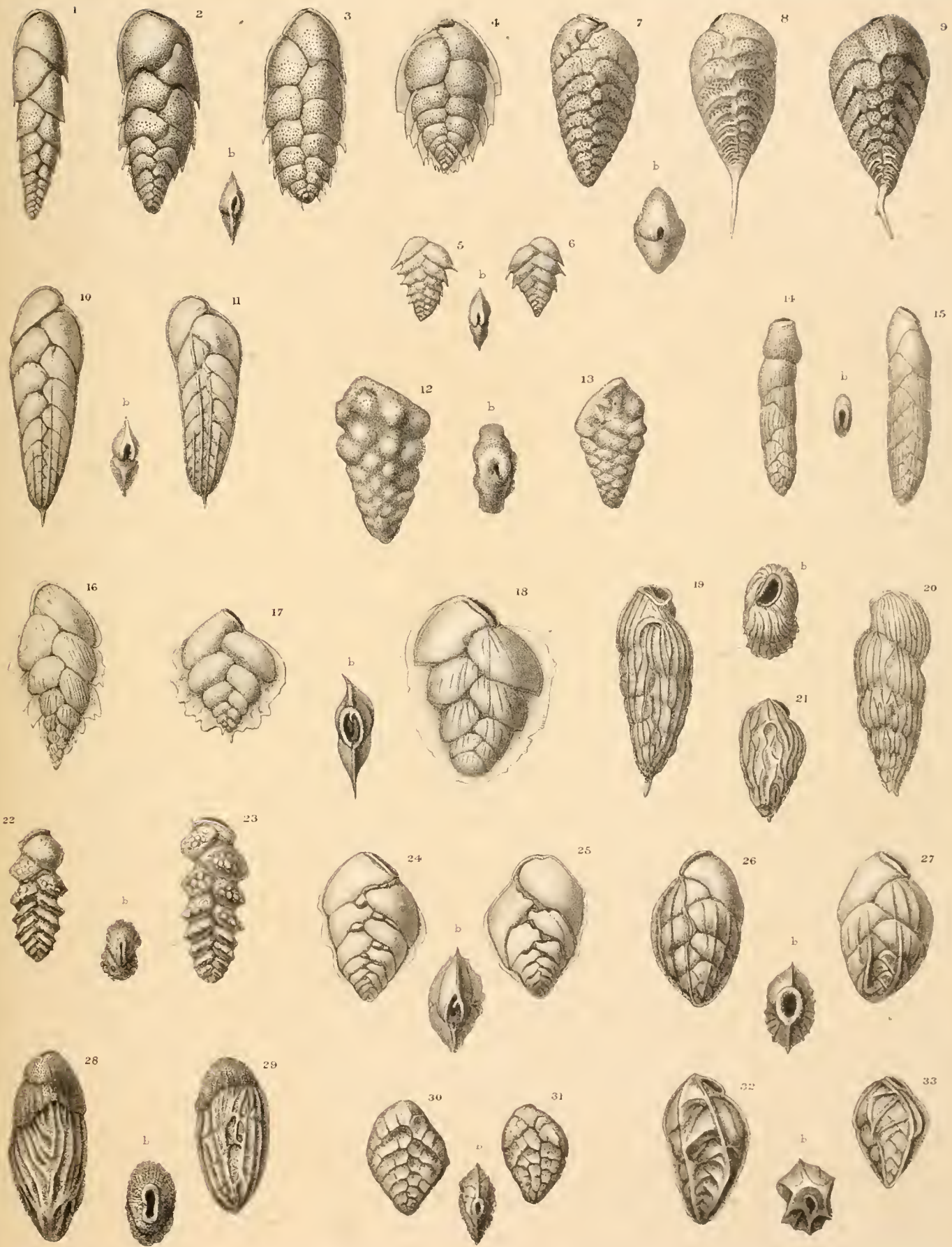
PLATE LIII.

# PLATE LIII.

## BOLIVINA.

Figure				Diam.	Page
1.	— <i>Bolivina beyrichi</i> , Reuss,	.	.	× 50	422
	Lateral aspect.				
„ 2-4.	— <i>Bolivina beyrichi</i> , var. <i>alata</i> , Seguenza,	.	.	.	422
	Fig. 2. Lateral aspect,	.	.	× 50	
	Figs. 3, 4. Lateral aspect ; <i>b</i> , oral aspect,	.	.	× 60	
„ 5, 6.	— <i>Bolivina pygmæa</i> , Brady,	.	.	× 60	421
	Figs. 5, 6. Lateral aspect ; <i>b</i> , oral aspect.				
„ 7-9.	— <i>Bolivina robusta</i> , Brady,	.	.	× 60	421
	Figs. 7, 8, 9. Lateral aspects ; <i>b</i> , oral aspect.				
„ 10, 11.	— <i>Bolivina anariensis</i> , Costa, sp.,	.	.	× 50	423
	Figs. 10, 11. Lateral aspect ; <i>b</i> , oral aspect.				
„ 12, 13.	— <i>Bolivina decussata</i> , Brady,	.	.	× 60	423
	Figs. 12, 13. Lateral aspect ; <i>b</i> , oral aspect.				
„ 14, 15.	— <i>Bolivina nobilis</i> , Hantken,	.	.	× 60	424
	Figs. 14, 15. Lateral aspect ; <i>b</i> , oral aspect.				
„ 16-18.	— <i>Bolivina hantkeniana</i> , Brady,	.	.	.	424
	Figs. 16, 17. Lateral aspect ; <i>b</i> , oral aspect,	.	.	× 40	
	Fig. 18. Lateral aspect,	.	.	× 60	
„ 19-21.	— <i>Bolivina karrieriana</i> , Brady,	.	.	× 60	424
	Figs. 19, 20, 21. Lateral aspects ; <i>b</i> , oral aspect.				
„ 22, 23.	— <i>Bolivina lobata</i> , Brady,	.	.	× 80	425
	Figs. 22, 23. Lateral aspect ; <i>b</i> , oral aspect.				
„ 24, 25.	— <i>Bolivina schwageriana</i> , Brady,	.	.	× 50	425
	Figs. 24, 25. Lateral aspect ; <i>b</i> , oral aspect.				
„ 26, 27.	— <i>Bolivina costata</i> , d'Orbigny,	.	.	× 60	426
	Figs. 26, 27. Lateral aspect ; <i>b</i> , oral aspect.				
„ 28, 29.	— <i>Bolivina amygdalaformis</i> , Brady,	.	.	× 50	426
	Figs. 28, 29. Lateral aspect ; <i>b</i> , oral aspect.				
„ 30, 31.	— <i>Bolivina reticulata</i> , Hantken,	.	.	× 70	426
	Figs. 30, 31. Lateral aspect ; <i>b</i> , oral aspect.				
„ 32, 33.	— <i>Bolivina subangularis</i> , Brady,	.	.	× 60	427
	Figs. 32, 33. Lateral aspect ; <i>b</i> , oral aspect.				





AT Hollick ad nat del et lith

BULIMINA, (Bolivina)

Harbart imp





PLATE LIV.

# PLATE LIV.

## CASSIDULINA.—BULIMINA.

		Diam.	Page
Figures 1-3.—	<i>Cassidulina laevigata</i> , d'Orbigny, . . . . .	× 75	428
	Fig. 1. <i>a</i> , Superior lateral aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.		
	Fig. 2. Specimen with carinate margin.		
	Fig. 3. Specimen with serrate keel.		
„ 4, 5.—	<i>Cassidulina crassa</i> , d'Orbigny, . . . . .		429
	Fig. 4. <i>a</i> , Superior lateral aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect, . . . . .	× 60	
	Fig. 5. <i>a</i> , Superior lateral aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect, . . . . .	× 75	
„ 6-10.—	<i>Cassidulina bradyi</i> , Norman, . . . . .	× 75	431
	Fig. 10. <i>a</i> , Superior lateral aspect ; figs. 6, 7, 10 <i>b</i> , inferior aspect ; fig. 8, peripheral aspect ; fig. 9, oral aspect.		
„ 11-16.—	<i>Cassidulina parkeriana</i> , Brady, . . . . .	× 75	432
	Figs. 11-14. Lateral aspects ; figs. 15, 16, oral aspects.		
„ 17.—	<i>Cassidulina subglobosa</i> , Brady, . . . . .	× 60	430
	<i>a</i> , Lateral aspect ; <i>b, c</i> , ventral and dorsal peripheral aspects.		
„ 18.—	<i>Bulimina contraria</i> , Reuss, sp., . . . . .	× 60	409
	<i>a</i> , Superior lateral aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.		



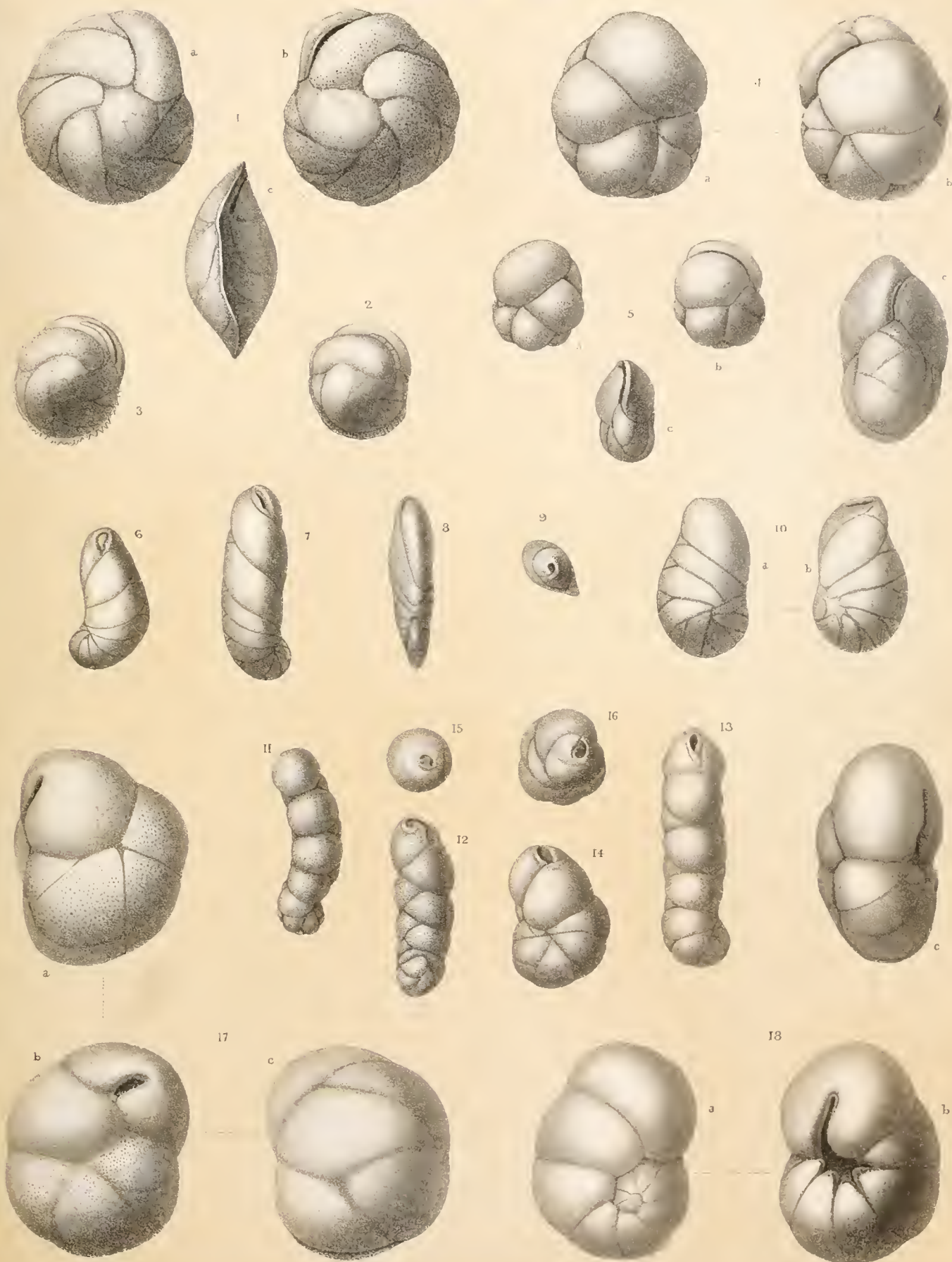






PLATE LV.

# PLATE LV.

## EHRENBERGINA.—CHILOSTOMELLA.—ALLOMORPHINA.

		Diam.	Page
Figure 1.— <i>Ehrenbergina pupa</i> , d'Orbigny, sp.,	.	× 75	433
<i>a</i> , Ventral lateral aspect ; <i>b</i> , dorsal aspect.			
„ 2-7.— <i>Ehrenbergina serrata</i> , Reuss,	.	.	434
Figs. 2 <i>a</i> , 6. Ventral lateral aspects ; figs. 2 <i>b</i> , 7, dorsal aspects,		× 60	
Fig. 3. Ventral aspect ; figs. 4, 5, oral aspects,		× 75	
„ 8-11.— <i>Ehrenbergina hystrix</i> , Brady,	.	× 60	434
Figs. 8, 9. Ventral aspect ; figs. 10, 11, dorsal aspect.			
„ 12-23.— <i>Chilostomella ovoidea</i> , Reuss,	.	.	436
Figs. 12-18. Lateral aspects ; figs. 19, 20, oral aspects,		× 50	
Figs. 21, 22. Small specimens mounted in Canada balsam and viewed by transmitted light, showing the arrangement of the chambers,		× 70	
Fig. 23. Specimen with part of the wall of the final segment removed,		× 50	
„ 24-26.— <i>Allomorphina trigonula</i> , Reuss,	.	.	438
Figs. 24, 25. Lateral aspects,		× 60	
Fig. 26. Specimen mounted in Canada balsam and viewed by transmitted light, showing the arrangement of the chambers,		× 100	







PLATE LVI.

# PLATE LVI.

## LAGENA.

(*a*, Lateral aspect ; *b*, oral aspect.)

				Diam.	Page
Figures	1-3.— <i>Lagena globosa</i> , Montagu, sp.,	.	.	×	60-75 452
„	4.— <i>Lagena apiculata</i> , Reuss, sp.,	.	.	×	75 453
„	5.— <i>Lagena ovum</i> , Ehrenberg, sp.,	.	.	×	75 454
„	6.— <i>Lagena botelliformis</i> , Brady,	.	.	×	75 454
„	7-14.— <i>Lagena levis</i> , Montagu, sp.,	.	.	×	75 455
„	15-18.— <i>Lagena apiculata</i> , Reuss, sp.,	.	.	×	75 453
„	19-28.— <i>Lagena gracillima</i> , Seguenza, sp.,	.	.	×	60 456
„	29.— <i>Lagena elongata</i> , Ehrenberg, sp.,	.	.	×	60 457
„	30.— <i>Lagena levis</i> , Montagu, sp. (var.),	.	.	×	75 455
„	31, 32.— <i>Lagena truncata</i> , n. sp.,	.	.	×	75 457
„	33-36.— <i>Lagena longispina</i> , Brady, globular form.	.	.	.	454
	Figs. 33-35. × 75 ;—fig. 36,	.	.	×	50





PLATE LVII.



# PLATE LVII.

## LAGENA.

(*a*, Lateral aspect ; *b*, oral aspect.)

			Diam.	Page
Figures 1-4.—	<i>Lagena hispida</i> , Reuss,	. . . . .	× 60	459
„ 5.—	<i>Lagena ampulla-distoma</i> , Rymer Jones,	. . . . .	× 60	458
„ 6 (?) 7-12.—	<i>Lagena aspera</i> , Reuss,	. . . . .		457
	Figs. 6, 7. × 75; figs. 8, 9,	. . . . .	× 60	
	Figs. 10, 11,	. . . . .	× 45	
	Fig. 12. Compressed ecto-ento-solenian specimen,	. . . . .	× 60	
„ 13.—	<i>Lagena lineata</i> , Williamson, sp.,	. . . . .	× 60	461
„ 14, 16, 17, (and 18 ?).—	<i>Lagena semistriata</i> , Williamson,	. . . . .	× 75	465
„ 15, 21.—	<i>Lagena crenata</i> , Parker and Jones,	. . . . .	× 75	467
„ 20.—	Intermediate form, resembling <i>Lagena crenata</i> and <i>Lagena semistriata</i> ,	. . . . .	× 75	465
„ 19, 22, 24, 28, 29, 30.—	<i>Lagena striata</i> , d'Orbigny, sp.,	. . . . .	× 60	460
„ 23, 26, 33, 34.—	<i>Lagena sulcata</i> , Walker and Jacob,	. . . . .	× 60	462
„ 25, 27.—	<i>Lagena sulcata</i> , var. <i>interrupta</i> , Williamson,	. . . . .	× 60	463
„ 31, 32.—	<i>Lagena acuticosta</i> , Reuss,	. . . . .	× 60-75	464
„ 35, 36.—	<i>Lagena stelligera</i> , Brady,	. . . . .	× 75	466

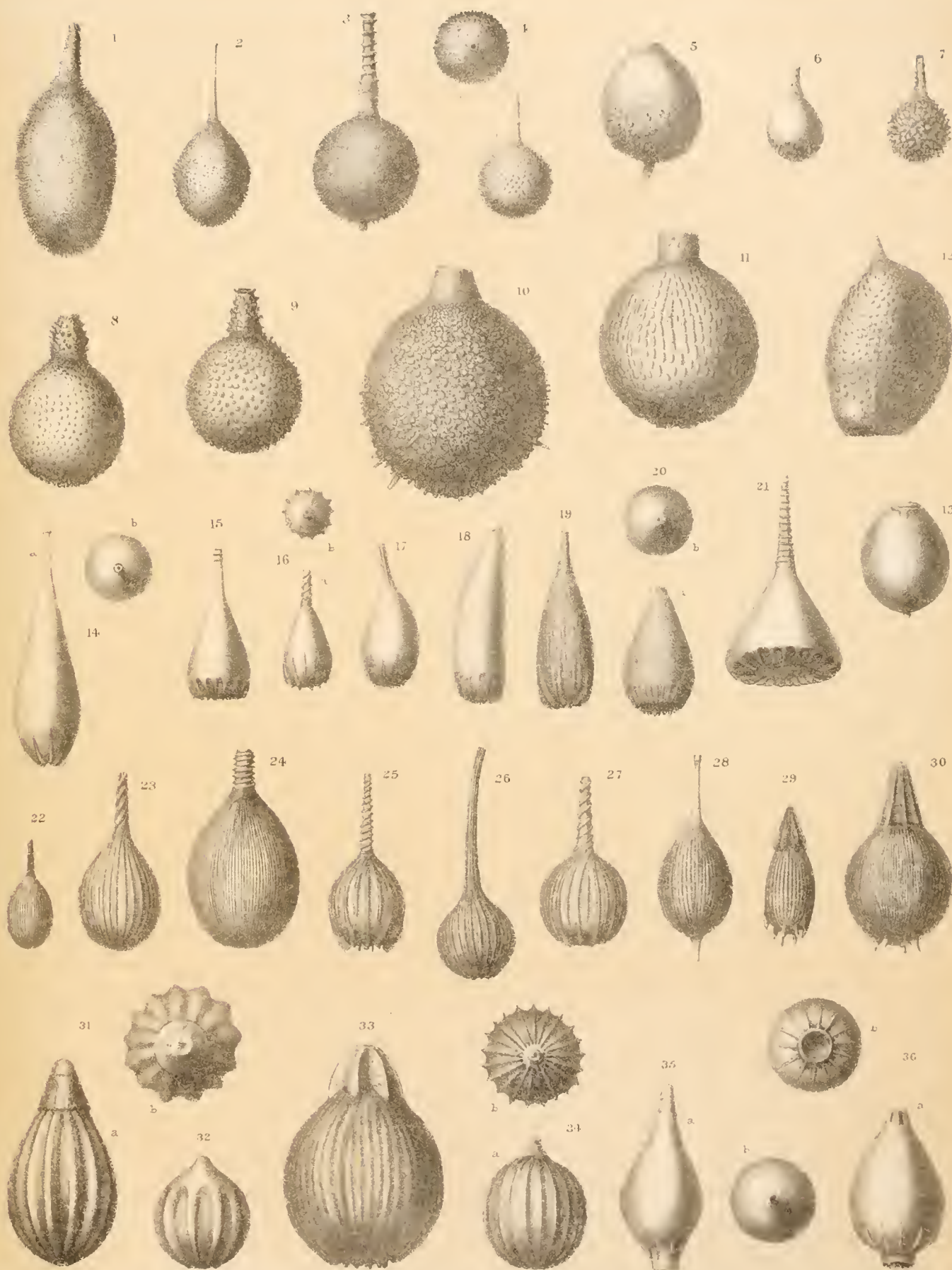




PLATE LVIII.

# PLATE LVIII.

## LAGENA.

(*a*, Lateral aspect ; *b*, oral aspect.)

			Diam.	Page
Figure 1.—	<i>Lagena exsculpta</i> , Brady,	. . . . .	× 75	467
„ 2, 3, 7–10.—	<i>Lagena gracilis</i> , Williamson,	. . . . .	× 75	464
„ 4, 17 (?), 18.—	Apiculate forms of <i>Lagena suleata</i> , Walker and Jacob,	. . . . .	× 75	462
„ 5, 6.—	Apiculate form of <i>Lagena suleata</i> , var. <i>interrupta</i> , Williamson,	. . . . .	× 75	463
„ 11–15.—	<i>Lagena distoma</i> , Parker and Jones,	. . . . .	× 45–60	461
„ 16.—	<i>Lagena distoma-margaritifera</i> , Parker and Jones,	. . . . .	× 40	458
„ 19, 22–24.—	<i>Lagena gracilis</i> , Williamson,	. . . . .	× 75	464
„ 20 (?), 21.—	<i>Lagena acuticosta</i> , Reuss,	. . . . .	× 75	464
„ 25, 26 (?), 27.—	<i>Lagena plumigera</i> , Brady,	. . . . .	× 75	465
„ 28–31.—	<i>Lagena squamosa</i> , Montagu, sp.,	. . . . .	× 75	471
„ 32, 33.—	<i>Lagena hexagona</i> , Williamson, sp.,	. . . . .	× 75	472
„ 34.—	<i>Lagena seminuda</i> , n. sp.,	. . . . .	× 60	472
„ 35.—	<i>Lagena favoso-punctata</i> , Brady,	. . . . .	× 75	473
„ 36.—	<i>Lagena hertwigiana</i> , Brady,	. . . . .	× 75	470
„ 37, 40.—	<i>Lagena striatopunctata</i> , Parker and Jones,	. . . . .	× 75	468
„ 38, 39.—	<i>Lagena feildleniana</i> , Brady,	. . . . .	× 75	469
„ 41.—	<i>Lagena torquata</i> , Brady,	. . . . .	× 75	469
„ 42, 43.—	<i>Lagena desmophora</i> , Rymer Jones,	. . . . .	× 75	468







PLATE LIX.

# PLATE LIX.

## LAGENA.

(*a*, Lateral aspect ; *b*, oral aspect.)

Figure			Diam.	Page
1.	— <i>Lagena orbignyana</i> , Seguenza, sp., . . .	×	75	484
„ 2, 5.	— <i>Lagena hispida</i> , Reuss, compressed variety, . . . Much worn specimens.	×	75	459
„ 3.	— <i>Lagena quadrata</i> , Williamson, sp., . . .	×	75	475
„ 4.	— <i>Lagena favoso-punctata</i> , Brady ; compressed form	×	75	473
„ 6.	— <i>Lagena acuta</i> , Reuss, sp. (not typical), . . .	×	60	474
„ 7.	— <i>Lagena quadricostulata</i> , Reuss (?), . . .	×	60	486
„ 8-11.	— <i>Lagena staphyllearea</i> , Schwager, sp. Fig. 8. × 45 diameters ; figs. 9-11, . . .	×	75	474
„ 12.	— <i>Lagena unguiculata</i> , Brady, . . .	×	60	474
„ 13, 14.	— <i>Lagena longispina</i> , Brady ; compressed variety, . . . Fig. 13. The spines of this specimen are hollow.	×	30	454
„ 15.	— <i>Lagena quadricostulata</i> , Reuss, . . .	×	75	486
„ 16.	— <i>Lagena quadrata</i> , Williamson sp., . . . Partially carinate specimen.	×	75	475
„ 17, 19.	— <i>Lagena marginata</i> , var. <i>semimarginata</i> , Reuss, .	×	60-75	477
„ 18, 20.	— <i>Lagena orbignyana</i> , Seguenza, sp., varieties, .	×	75-90	484
„ 21-23.	— <i>Lagena marginata</i> , Walker and Boys. Fig. 21. × 45 ; fig. 22, × 40 ; fig. 23, . . .	×	25	476
„ 24-26.	— <i>Lagena orbignyana</i> , Seguenza, sp. Fig. 24. × 45 ; fig. 25, × 30 ; fig. 26, . . .	×	60	484
„ 27.	— <i>Lagena siliqua</i> , Rymer Jones, . . .	×	45	478
„ 28-30.	— <i>Lagena seminiformis</i> , Schwager, . . .	×	45-60	478



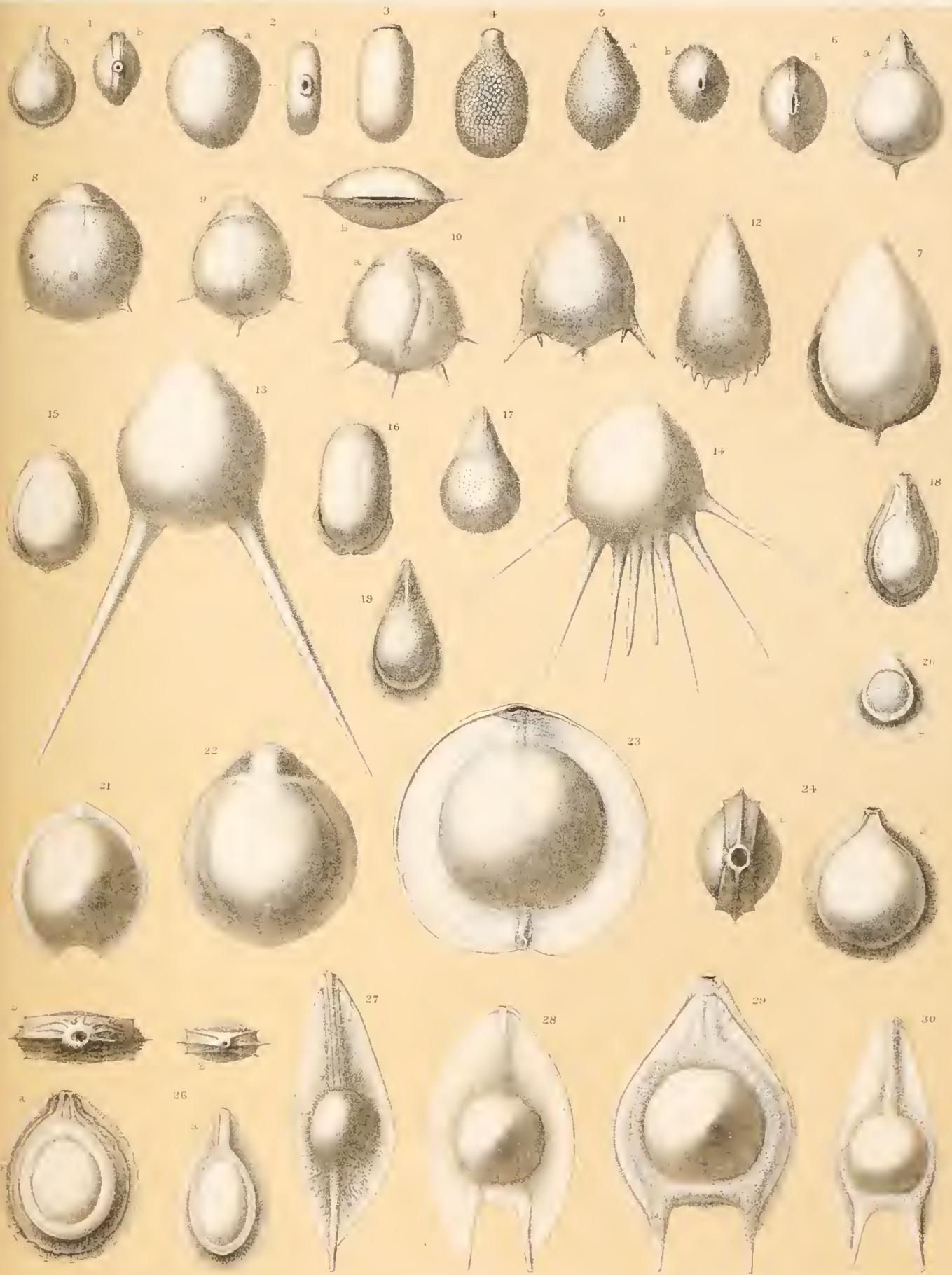






PLATE LX.

# PLATE LX.

## LAGENA.

(a, Lateral aspect; b, oral aspect.)

		Diam.	Page
Figures 1, 2, 3 (?).	<i>Lagena eastrensis</i> , Schwager, . . . . .	× 75	485
„ 4.	<i>Lagena elathrata</i> , n. sp., . . . . .	× 75	485
„ 5.	<i>Lagena quadrata</i> , Williamson, sp. (variety), . . . . .	× 75	475
„ 6, 7, 9, 12-14.	<i>Lagena lagenoides</i> , Williamson, sp., . . . . .	× 60-75	479
„ 11, 15, 16.	<i>Lagena lagenoides</i> , var. <i>tenuistriata</i> , nov., . . . . .	× 60-75	479
„ 8 (?), 10, 17 (?), 18-20.	<i>Lagena formosa</i> , Schwager. . . . .		480
	Fig. 8. × 75; figs. 10, 20, × 60; fig. 17, × 90; figs. 18, 19, . . . . .	× 50	
„ 21.	<i>Lagena formosa</i> , var. <i>favosa</i> , Brady, . . . . .	× 60	480
„ 22.	<i>Lagena formosa</i> , var. <i>comata</i> , Brady, . . . . .	× 75	480
„ 23.	<i>Lagena squamoso-alata</i> , Brady, . . . . .	× 60	481
„ 24.	<i>Lagena squamoso-marginata</i> , Parker and Jones, . . . . .	× 60	481
„ 25.	<i>Lagena alveolata</i> , var. <i>caudigera</i> , Brady, . . . . .	× 40	488
„ 26-28.	<i>Lagena fimbriata</i> , Brady, . . . . .	× 60	486
„ 29, 31 (?), 33.	<i>Lagena auriculata</i> , Brady, . . . . .	× 60	487
„ 30, 32.	<i>Lagena alveolata</i> , n. sp., . . . . .	× 60	487
„ 34.	<i>Lagena alveolata</i> , var. <i>substriata</i> , Brady, . . . . .	× 60	488
„ 35-37.	Winged varieties of <i>Lagena sulcata</i> , Walker and Jacob, . . . . .	× 75	462
„ 38.	<i>Lagena auriculata</i> , var. <i>costata</i> , Brady, . . . . .	× 60	487

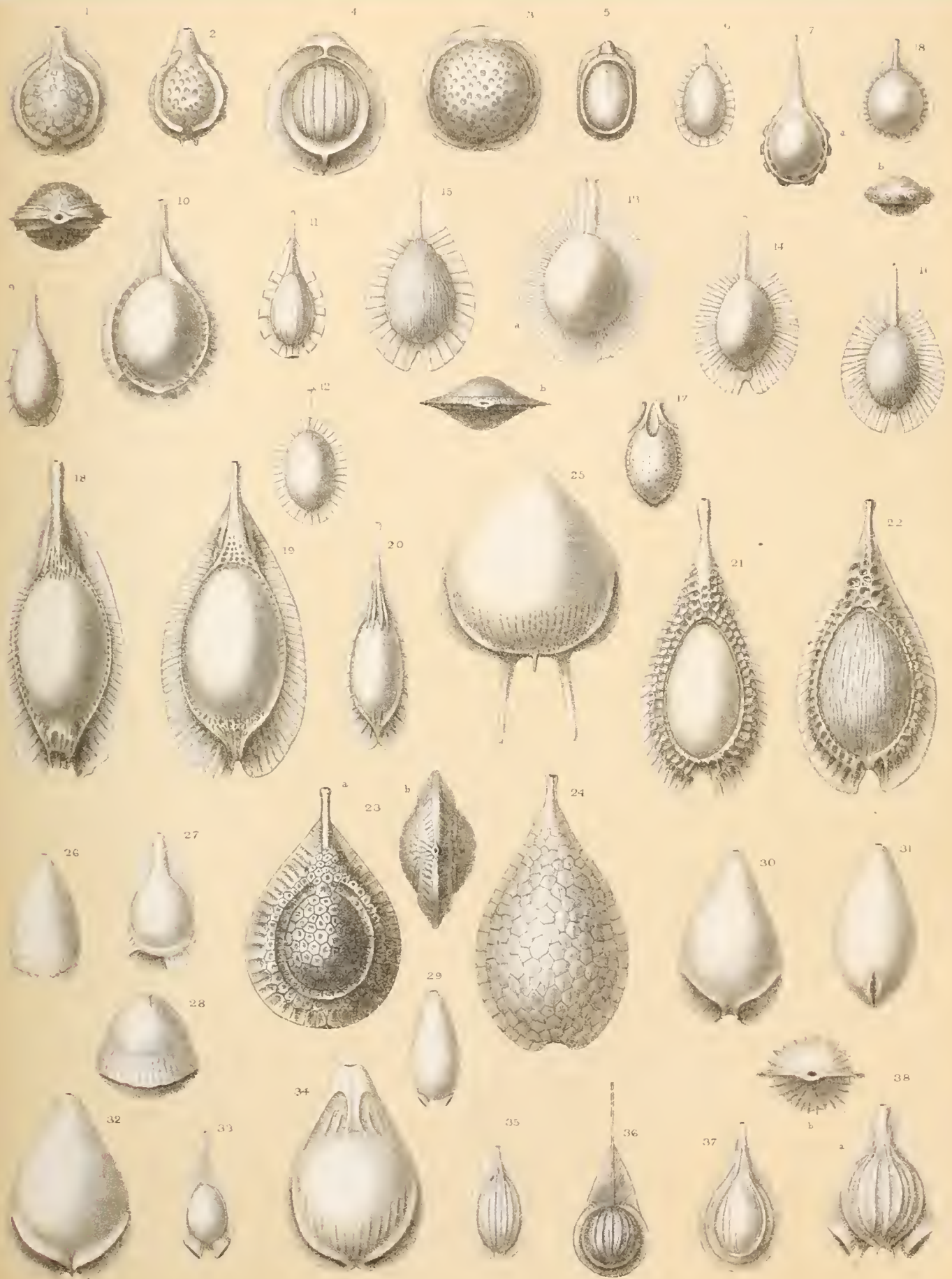






PLATE LXI.

# PLATE LXI.

## LAGENA.—NODOSARIA.

(*a*, Lateral aspect ; *b*, oral aspect.)

Figure		Diam.	Page
1.—	<i>Lagena variata</i> , Brady, . . . . .	× 75	461
„ 2.—	<i>Lagena favoso-punctata</i> , Brady, . . . . .	× 100	473
„ 3.—	<i>Lagena quadralata</i> , Brady, . . . . .	× 100	464
„ 4.—	<i>Lagena multieosta</i> , Karrer, sp., . . . . .	× 75	466
„ 5.—	<i>Lagena exsculpta</i> , Brady ; compressed form, . . . . .	× 75	467
„ 6, 7.—	<i>Lagena wrightiana</i> , Brady, . . . . .	× 90	482
„ 8, 9.—	<i>Lagena radiato-marginata</i> , Parker and Jones, . . . . .	× 90	481
„ 10.—	<i>Lagena schulzeana</i> , Brady, . . . . .	× 90	482
„ 11.—	<i>Lagena trigono-oblonga</i> , Seguenza and Siddall, . . . . .	× 75	475
„ 12, 13.—	<i>Lagena trigono-marginata</i> , Parker and Jones, . . . . .	× 100	482
„ 14.—	<i>Lagena trigono-ornata</i> , Brady, . . . . .	× 60	483
„ 15, 16.—	<i>Lagena quinquelatera</i> , Brady, . . . . .	× 100	484
„ 17–19.—	<i>Nodosaria (Glandulina)</i> , <i>rotundata</i> , Reuss, . . . . .	× 30	491
„ 20–22.—	<i>Nodosaria (Glandulina)</i> , <i>lævigata</i> , d'Orbigny, . . . . .	× 30	490
„ 23–27.—	<i>Nodosaria calomorpha</i> , Reuss, . . . . .	× 50	497
„ 28–31.—	<i>Nodosaria radicula</i> , Linné, sp., . . . . .	× 30	495
„ 32.—	<i>Nodosaria (Glandulina)</i> , <i>æqualis</i> , Reuss, sp., . . . . .	× 30	492





PLATE LXII.

(ZOOLOGICAL CHALLENGER. — PART XXII. — 1884.) — Y.

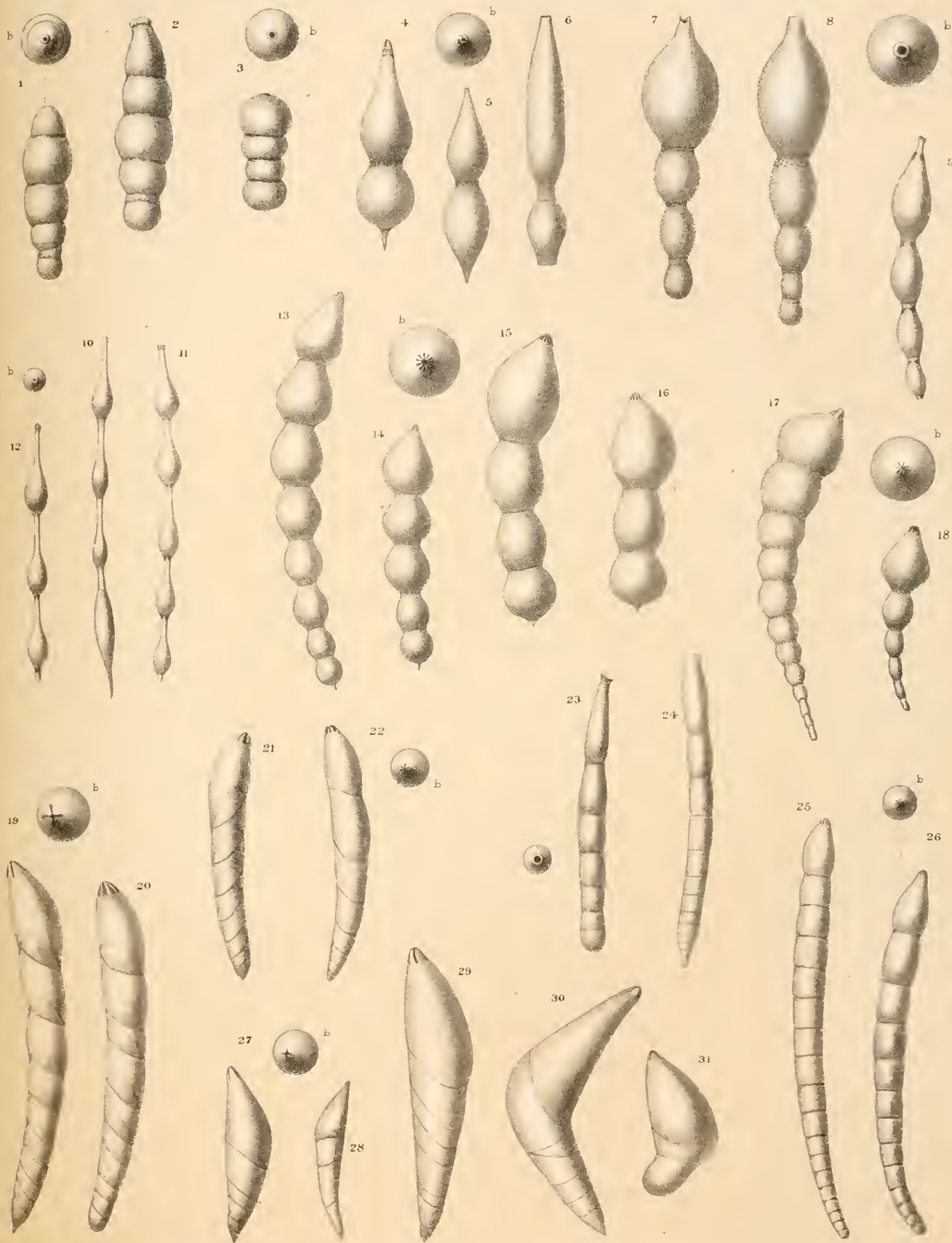


## PLATE LXII.

### NODOSARIA.

(b, Oral aspect.)

	Diam.	Page
Figures 1, 2.— <i>Nodosaria radicula</i> , var. <i>annulata</i> , Terquem and Berthelin, . . . . .	× 50	496
„ 3.— <i>Nodosaria radicula</i> , var. <i>ambigua</i> , Neugeboren, . . . . .	× 50	496
„ 4, 5 (and 6 ?).— <i>Nodosaria simplex</i> , Silvestri, . . . . .	× 35–50	496
„ 7, 8.— <i>Nodosaria subtertenuata</i> , Schwager, . . . . .	× 50	507
„ 9.— <i>Nodosaria inflexa</i> , Reuss, . . . . .	× 30	498
„ 10–12.— <i>Nodosaria pyrula</i> , d'Orbigny, . . . . .	× 30–40	497
„ 13–16.— <i>Nodosaria soluta</i> , Reuss, . . . . .	× 12	503
„ 17, 18.— <i>Nodosaria fareimen</i> , Soldani, sp. (not typical; see woodcuts, p. 499). . . . .	× 15	498
„ 19–22.— <i>Nodosaria communis</i> , d'Orbigny, . . . . .	× 35–50	504
„ 23, 24.— <i>Nodosaria consobrina</i> , d'Orbigny, sp., . . . . .	× 50	501
„ 25, 26.— <i>Nodosaria consobrina</i> , var. <i>emaciata</i> , Reuss, . . . . .	× 15	502
„ 27–29.— <i>Nodosaria mucronata</i> , Neugeboren, sp., . . . . .	× 50	506
„ 30, 31.—Monstrous specimens of the same, . . . . .	× 40	



A. Hollick sc. nat. del. et lith.

NODOSARIA.

Hannart imp.



PLATE LXIII.

# PLATE LXIII.

## NODOSARIA.

(*b*, Oral aspect.)

				Diam.	Page
Figure	1.— <i>Nodosaria roemeri</i> , Neugeboren, sp.,	.	.	× 20	505
,,	2.— <i>Nodosaria plebeia</i> , Reuss, . . .	.	.	× 20	502
,,	3–5.— <i>Nodosaria filiformis</i> , d'Orbigny, sp.,	.	.	.	500
	Figs. 3. × 10 ; figs. 4, 5,	.	.	× 20	
,,	6.— <i>Nodosaria (Glandulina) armata</i> , Reuss, . .	.	.	× 50	494
,,	7.— <i>Nodosaria retrorsa</i> , Reuss, sp., . . .	.	.	× 50	507
,,	8, 9.— <i>Nodosaria (?) abyssorum</i> , Brady, . . .	.	.	× 20	504
,,	10, 11.—Young or arrested specimens of <i>Nodosaria hispida</i> , d'Orbigny, or <i>Nodosaria setosa</i> , Schwager. ( <i>Nodosaria papillosa</i> , Silvestri ?)	.	.	× 75	508
,,	12–16.— <i>Nodosaria hispida</i> , d'Orbigny, . . .	.	.	.	507
	Fig. 12. × 45 ; figs. 13, 14, × 30 ; figs. 15, 16,			× 25	
,,	17.— <i>Nodosaria verruculosa</i> , Neugeboren, . . .	.	.	× 50	509
,,	18.—A portion of the shell more highly magnified,	.	.	× 100	
,,	19–21.— <i>Nodosaria hispida</i> , var. <i>sublineata</i> , nov.,	.	.	× 35	508
,,	22.—A portion of the shell more highly magnified,	.	.	× 100	
,,	23–26.— <i>Nodosaria costulata</i> , Reuss, . . .	.	.	× 15	515
,,	27.—A portion of the shell more highly magnified,	.	.	× 30	
,,	28–31.— <i>Nodosaria scalaris</i> , Batsch, sp., . . .	.	.	× 45–50	510
,,	32–33.— <i>Nodosaria catenulata</i> , n. sp., . . .	.	.	× 40	515
,,	34.—A portion of the shell more highly magnified,	.	.	× 100	
,,	35.— <i>Nodosaria vertebralis</i> , Batsch, sp., . . .	.	.	× 40	514



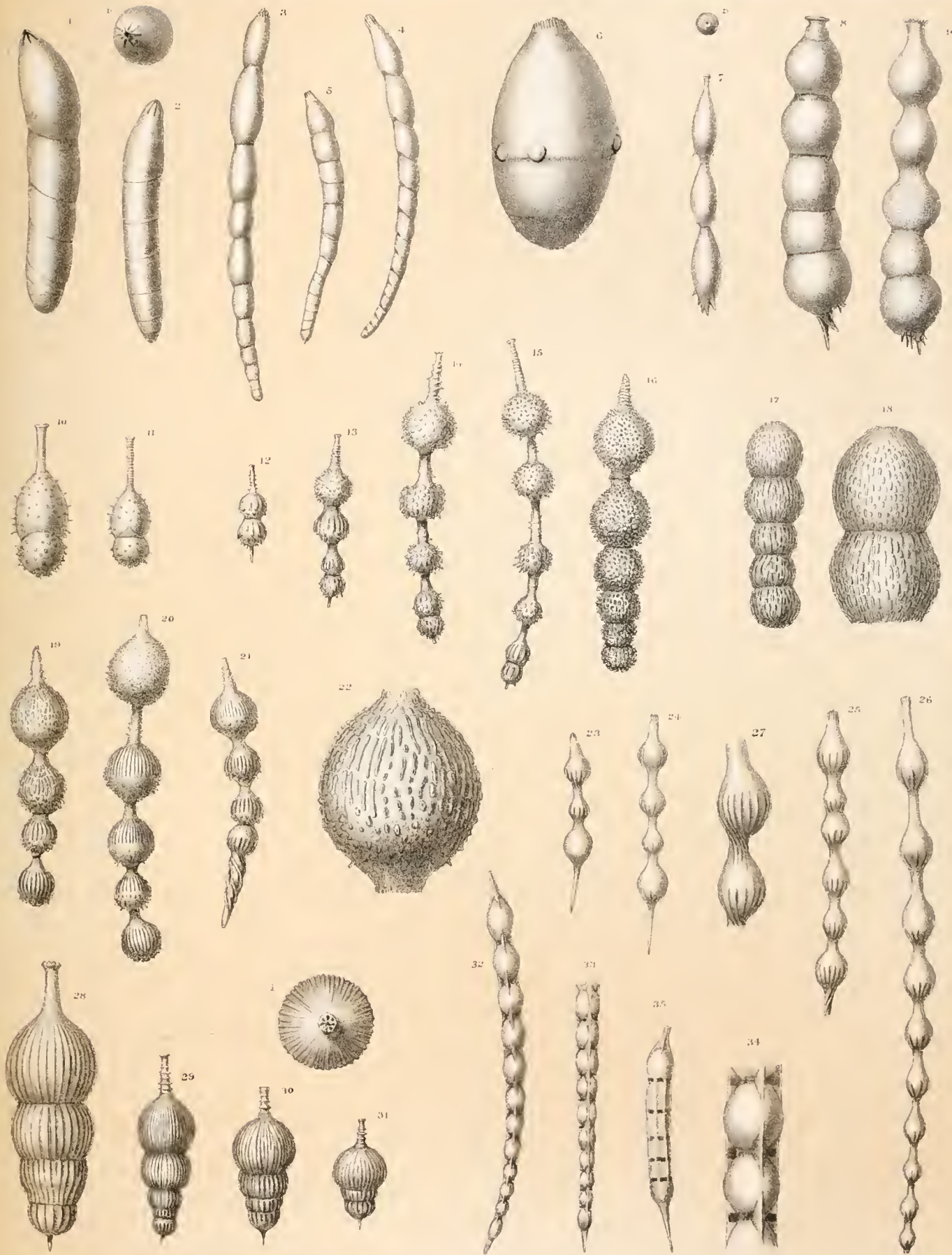




PLATE LXIV.

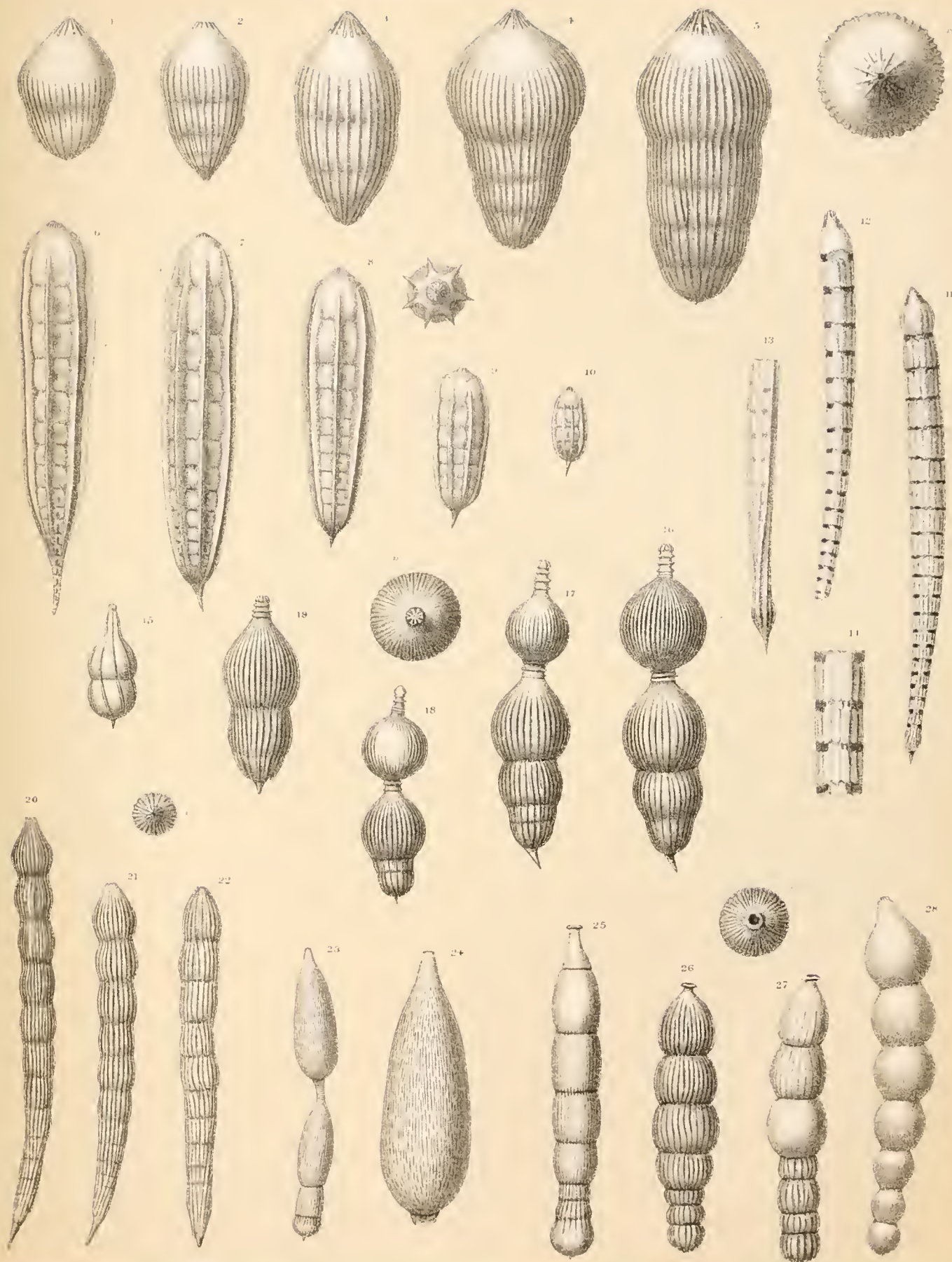
# PLATE LXIV.

## NODOSARIA.

(b, Oral aspect.)

			Diam.	Page
Figures 1-5.—	<i>Nodosaria comata</i> , Batsch, sp., . . .	×	50	509
	Specimens in various stages of growth.			
„ 6-10.—	<i>Nodosaria raphanus</i> , Linné, sp., . . .	×	15	512
„ 11-13.—	<i>Nodosaria vertebralis</i> , Batsch, sp., . . .	×	15-18	514
„ 14.—	A portion of a specimen more highly magnified, .	×	30	
„ 15.—	<i>Nodosaria proxima</i> , Silvestri, . . .	×	60	511
„ 16-19.—	<i>Nodosaria scalaris</i> , var. <i>separans</i> , nov., . . .	×	40	511
„ 20-22.—	<i>Nodosaria obliqua</i> , Linné, sp., . . .	×	16	513
„ 23.—	<i>Nodosaria subcanaliculata</i> , Neugeboren (var.), .	×	40	512
„ 24.—	A portion of the same more highly magnified, .	×	80	
„ 25-27.—	<i>Nodosaria perversa</i> , Schwager, . . .	×	50-60	512
„ 28.—	<i>Nodosaria soluta</i> , Reuss,—faintly striate specimen, . . .	×	15	503





A. T. Hollick ad nat. del. et lith.

NODOSARIA.

Hanhart imp.





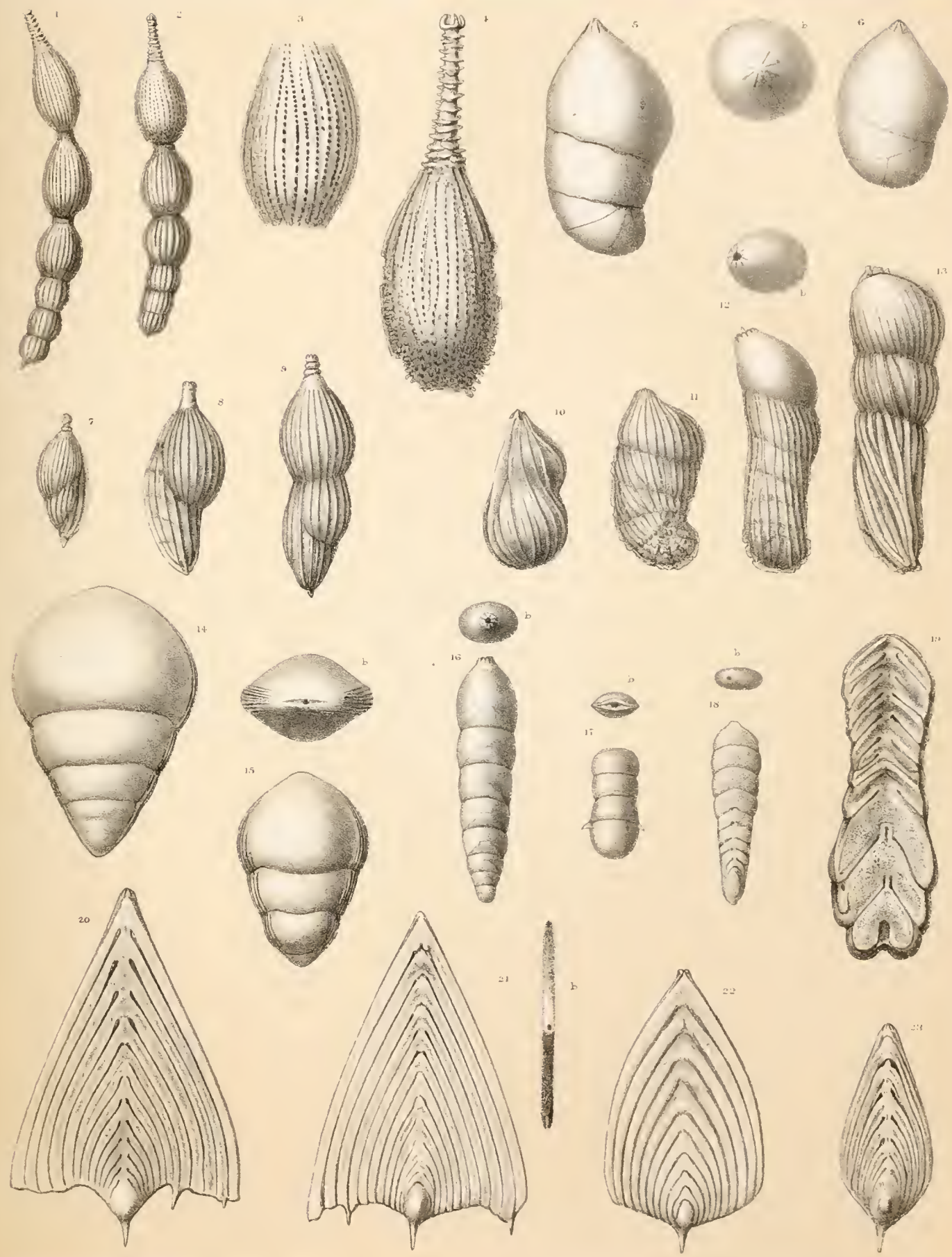
PLATE LXV.

# PLATE LXV.

NODOSARIA.—MARGINULINA.—LINGULINA.—FRONDICULARIA.

(b, Oral aspect.)

		Diam.	Page
Figures 1, 2.—	<i>Nodosaria intercellularis</i> , Brady,	× 40	515
„ 3, 4.—	Portions of the shell more highly magnified,	× 100	
„ 5, 6.—	<i>Marginulina glabra</i> , d'Orbigny,	× 30	527
„ 7-9.—	<i>Amphicoryne falx</i> , Jones and Parker, sp.,	× 50-60	556
„ 10-13.—	<i>Marginulina costata</i> , Batsch, sp.,		528
	Fig. 10. × 40 ; fig. 11, × 30 ; figs. 12, 13,	× 20	
„ 14, 15.—	<i>Lingulina carinata</i> , var. <i>seminuda</i> , Hantken,	× 12	518
„ 16, 17.—	<i>Lingulina carinata</i> , d'Orbigny,	× 90	517
„ 18.—	<i>Frondicularia spathulata</i> , Brady,	× 60	519
„ 19.—	<i>Frondicularia compta</i> , Brady,	× 60	520
„ 20-23.—	<i>Frondicularia alata</i> , d'Orbigny,		522
	Specimens in different stages of growth.		
	Figs. 20-22. × 15 ;—fig. 23, young shell,	× 20	



ATHollock ad nat. des. et lith.





PLATE LXVI.

# PLATE LXVI.

## FRONDICULARIA.—VAGINULINA.—CRISTELLARIA.

(*b*, Oral aspect.)

		Diam.	Page
Figures 1, 2.—	<i>Frondicularia robusta</i> , n. sp., . . . . .		523
	Fig. 1 <i>b</i> , Oral aspect. Fig. 1. $\times 75$ ; fig. 2, . . . . .	$\times 17$	
„ 3–5.—	<i>Frondicularia alata</i> , d'Orbigny (Flabelline variety), . . . . .	$\times 15-20$	522
„ 6, 7.—	<i>Frondicularia interrupta</i> , Karrer, . . . . .	$\times 60$	523
„ 8–12.—	<i>Frondicularia inæqualis</i> , Costa, . . . . .		521
	Figs. 8–11. $\times 60$ ; fig. 12, . . . . .	$\times 45$	
„ 13–15.—	<i>Vaginulina legumen</i> , Linné, sp., . . . . .	$\times 30$	530
	Fig. 15 <i>b</i> , Oral aspect.		
„ 16.—	<i>Vaginulina margaritifera</i> , Batsch, sp., . . . . .	$\times 13$	532
„ 17.—	<i>Cristellaria obtusata</i> , Reuss, . . . . .	$\times 25$	536
	<i>b</i> , Oral aspect.		
„ 18, 19.—	<i>Vaginulina brueckenthali</i> , Neugenboren, . . . . .	$\times 17$	532
„ 20.—	Intermediate specimen with Vaginuline commencement, and final Nodosarian chamber, . . . . .	$\times 60$	
„ 21–23.—	<i>Cristellaria tenuis</i> , Bornemann, sp., . . . . .		
	Figs. 21. $\times 35$ ; figs. 22, 23, . . . . .	$\times 20$	535
„ 24, 25.—	<i>Cristellaria obtusata</i> , var. <i>subalata</i> , nov., . . . . .	$\times 20$	536

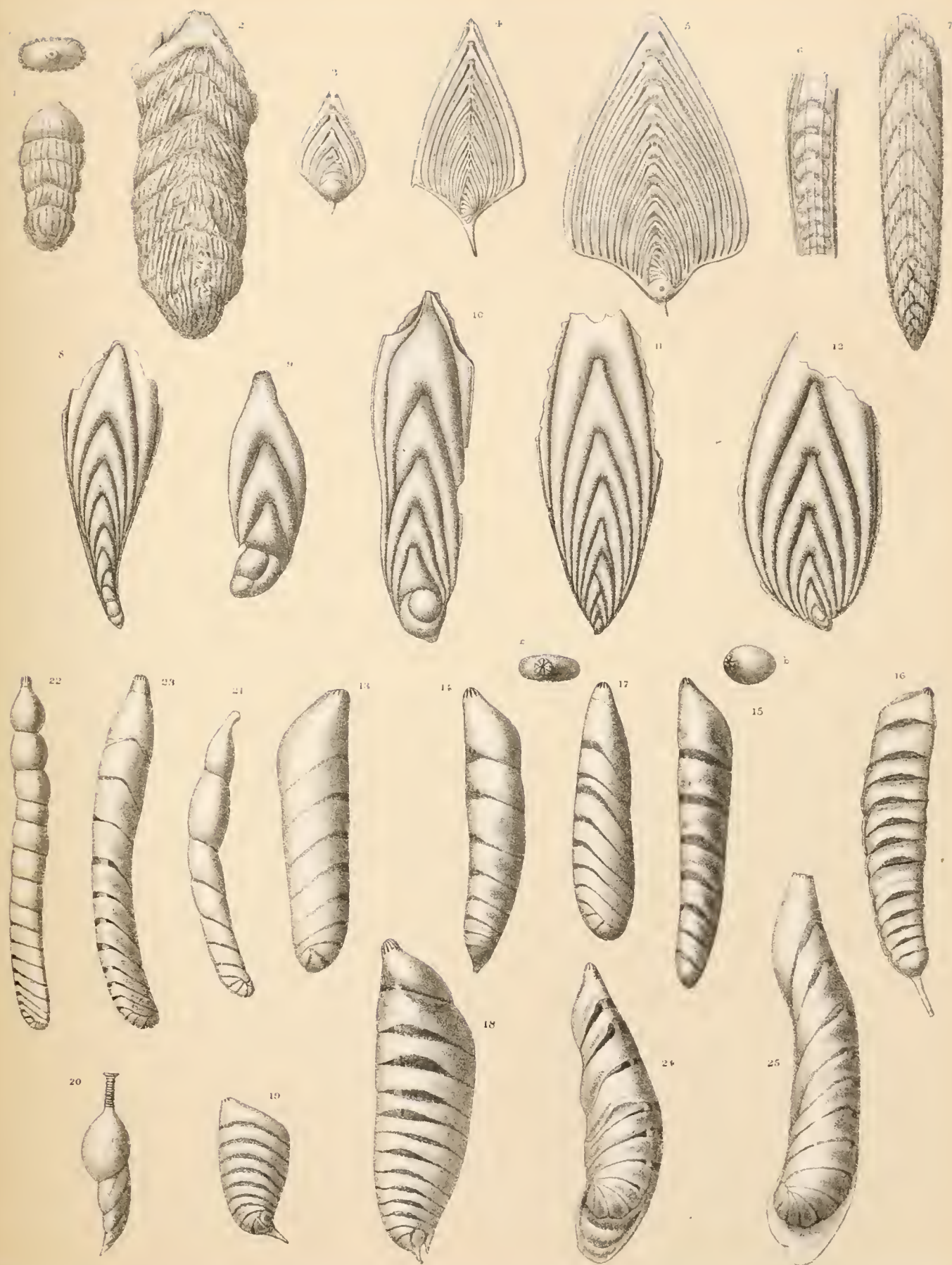




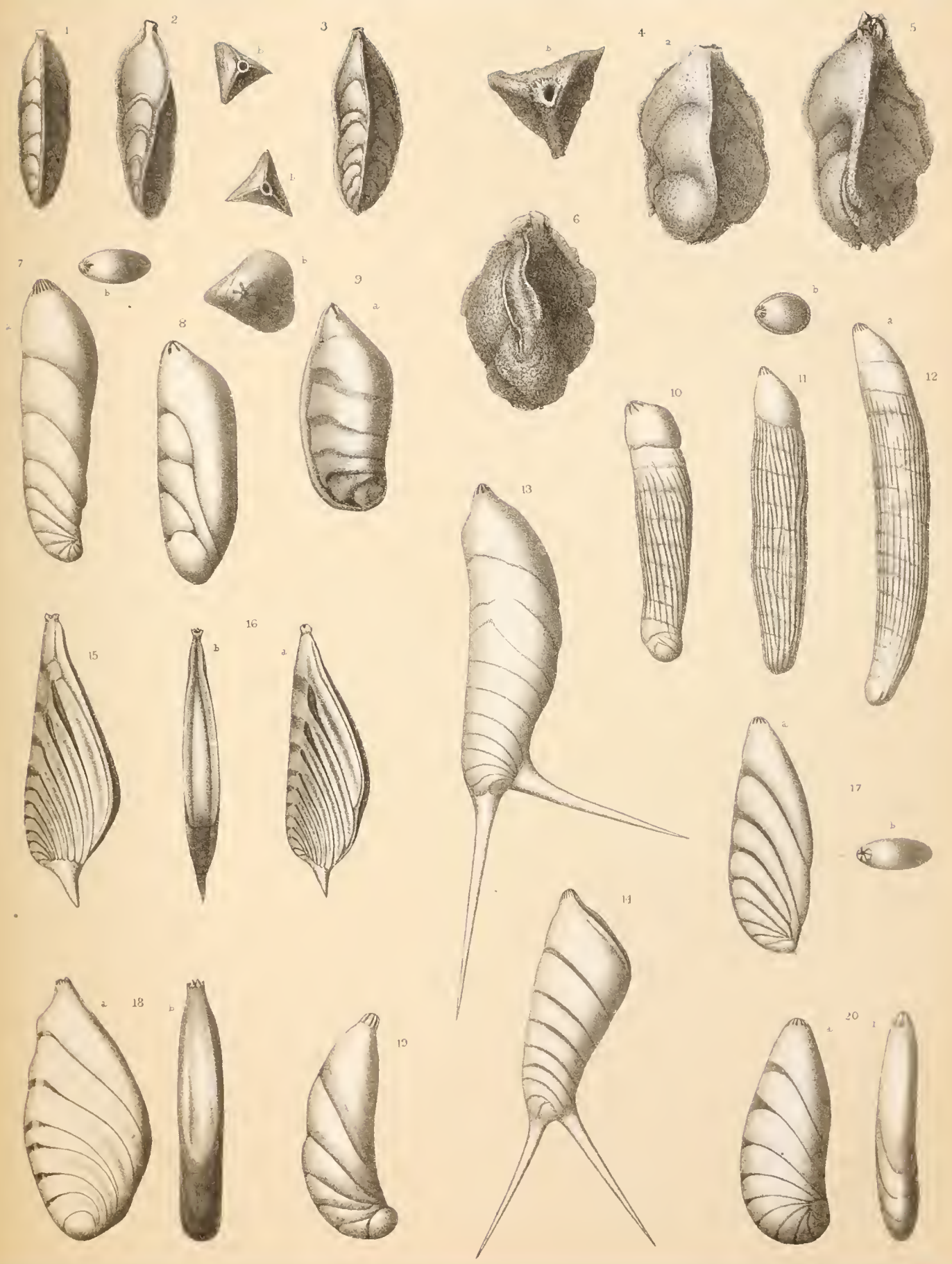
PLATE LXVII.



## PLATE LXVII.

### RHABDOGONIUM.—VAGINULINA.—CRISTELLARIA.

		Diam.	Page
Figures 1-3.—	<i>Rhabdogonium triearinatum</i> , d'Orbigny, sp., .	× 75	525
	<i>b, b</i> , Oral aspects.		
„ 4-6.—	<i>Rhabdogonium minutum</i> , Reuss, . . .	× 75	526
	<i>b</i> , Oral aspect.		
„ 7.—	<i>Cristellaria sehloenbachi</i> , Reuss, . . .	× 25	539
	<i>b</i> , Oral aspect		
„ 8.—	Anomalous specimen, probably of the same species,	× 60	
„ 9.—	<i>Cristellaria italica</i> , var. <i>volpicellii</i> , Costa, .	× 50	545
„ 10-12.—	<i>Vaginulina linearis</i> , Montagu, sp., . . .	× 15	532
	<i>b</i> , Oral aspect.		
„ 13, 14.—	<i>Vaginulina spinigera</i> , Brady, . . .	× 17	531
„ 15, 16.—	<i>Vaginulina patens</i> , n. sp., . . .	× 75	533
	Figs. 15, 16 <i>a</i> . Lateral aspects; <i>b</i> , front peripheral aspect.		
„ 17, 19, 20.—	<i>Cristellaria crepidula</i> , Fichtel and Moll, sp., .		542
	Fig. 17. <i>a</i> , Lateral aspect; <i>b</i> , oral aspect, . . .	× 60	
	Figs. 19, 20 <i>a</i> . Lateral aspect; <i>b</i> , front peripheral aspect,	× 50	
„ 18.—	<i>Cristellaria lata</i> , Cornuel, sp., . . .	× 25	539
	<i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.		



A. Follick ad nat. del et lith.

Hanhart imp.

RHABDOCONIUM-VAGINULINA-CRISTELLARIA



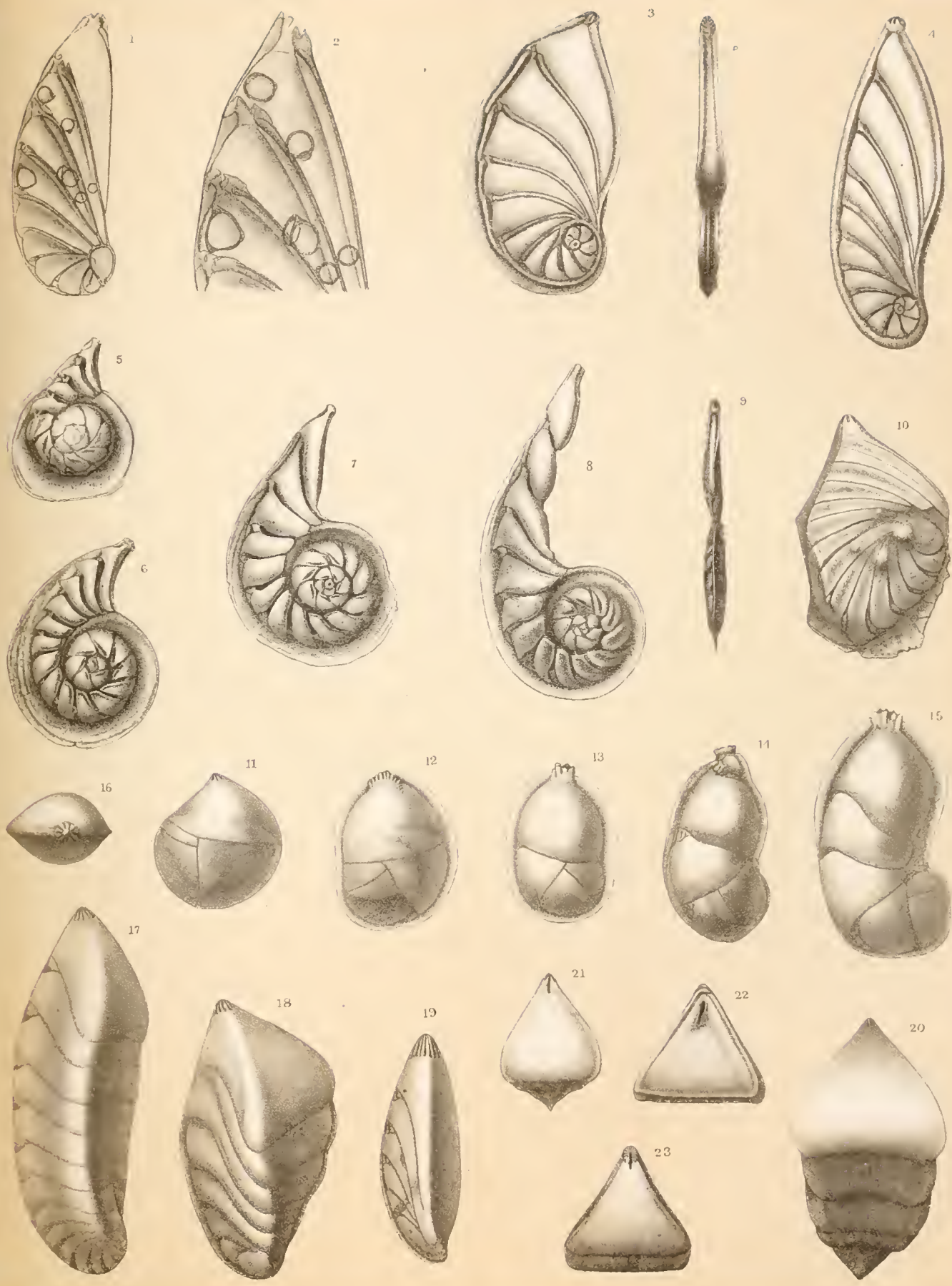
PLATE LXVIII.

## PLATE LXVIII.

### CRISTELLARIA.

		Diam.	Page
Figure 1.—	<i>Cristellaria crepidula</i> , Fichtel and Moll, sp., Specimen mounted in Canada balsam; with young shells in some of the later chambers.	× 50	542
„ 2.—	Portion of the same, more highly magnified,	× 100	
„ 3, 4.—	<i>Cristellaria tnearmella</i> , Reuss, <i>b</i> , Front peripheral aspect.	× 50	540
„ 5–9.—	<i>Cristellaria siddalliana</i> , Brady, Figs. 5–8. Lateral aspect; fig. 9, front peripheral aspect.	× 35	541
„ 10.—	<i>Cristellaria eassis</i> , Fichtel and Moll, sp.,	× 30	552
„ 11–16.—	<i>Cristellaria variabilis</i> , Reuss, Figs. 11–15. Lateral aspect of specimens in various stages of growth; fig. 16, oral aspect.	× 50	541
„ 17, 18, 20–23.—	<i>Cristellaria italica</i> , Defrance, sp., Figs. 17, 18. Lateral aspect; fig. 20, front peripheral aspect; figs. 21–23, oral aspect.	× 15–20	544
„ 19.—	<i>Cristellaria latifrons</i> , n. sp. (see also Pl. CXIII. fig. 11),	× 20	544





Hollick ad nat. del. lith.

Hanhart imp.

CRISTELLARIA



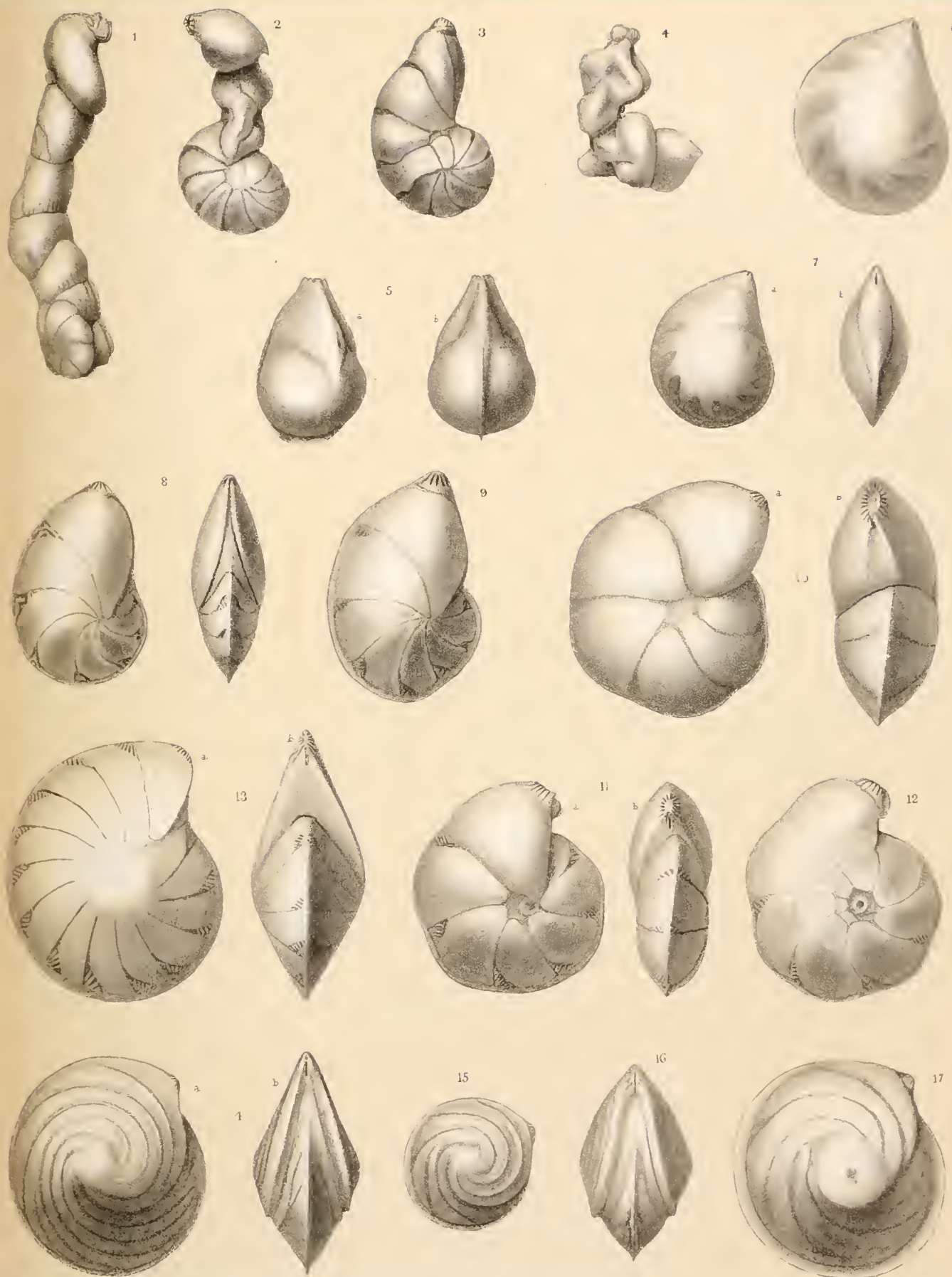
PLATE LXIX.

# PLATE LXIX.

## CRISTELLARIA.

		Diam.	Page
Figures 1-4.—	<i>Cristellaria articulata</i> , Reuss, . . . . .	× 20	547
	Wild-growing forms, abundant off Nightingale Island, Tristan d'Acunha.		
„ 5.—	<i>Cristellaria</i> , sp., . . . . .	× 35	
	Young specimen, possibly of <i>Cristellaria deformis</i> , Reuss, or some similar variety.		
„ 6, 7.—	<i>Cristellaria convergens</i> , Bornemann, . . . . .		546
	Fig. 6. Lateral aspect, . . . . .	× 40	
	Fig. 7. <i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect, . . . . .	× 50	
„ 8, 9.—	<i>Cristellaria gibba</i> , d'Orbigny, . . . . .	× 25	546
	Figs 8 <i>a</i> , 9. Lateral aspect; <i>b</i> , front peripheral aspect.		
„ 10-12.—	<i>Cristellaria articulata</i> , Reuss, . . . . .		547
	Fig. 10. <i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect, . . . . .	× 16	
	Fig. 11 <i>a</i> , 12. Lateral aspect; <i>b</i> , front peripheral aspect, . . . . .	× 35	
„ 13.—	<i>Cristellaria rotulata</i> , Lamarck, sp., . . . . .	× 12	547
	<i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.		
„ 14-16.—	<i>Cristellaria vortex</i> , Fichtel and Moll, sp., . . . . .	× 30	548
	Figs 14 <i>a</i> , 15. Lateral aspect; figs. 14 <i>b</i> , 16, front peripheral aspect.		
„ 17.—	<i>Cristellaria orbicularis</i> , d'Orbigny, sp., . . . . .	× 30	549
	Lateral aspect		





At. Follick ad nat. uel et lith.

Henshaw imp.

CRISTELLARIA





PLATE LXX.

## PLATE LXX.

### CRISTELLARIA.

			Diam.	Page
Figure	1.— <i>Cristellaria crassa</i> , d'Orbigny, . . . . .	×	40	549
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.			
„	2.— <i>Cristellaria nitida</i> , d'Orbigny, . . . . .	×	30	549
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.			
„	3.— <i>Cristellaria reniformis</i> , d'Orbigny, . . . . .	×	25	539
	<i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.			
„	4-6.— <i>Cristellaria cultrata</i> , Montfort, sp., . . . . .			550
	Fig. 4. <i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect, . . . . .	×	16	
	Fig. 5, 6. Lateral aspects. Fig. 5 × 15 diam. ; fig. 6 . . . . .	×	35	
„	7, 8.—Specimens of the same, with dentate carina, . . . . .	×	20	550
„	9-15.— <i>Cristellaria calcar</i> , Linné, sp., . . . . .			551
	Lateral aspect ; figs. 9-12, 15, × 35 diam. ; figs. 13, 14, . . . . .	×	25	
„	16.— <i>Cristellaria papillosa</i> , Fichtel and Moll, . . . . .	×	20	553
	Lateral aspect.			
„	17, 18.— <i>Cristellaria mamilligera</i> , Karrer, . . . . .	×	20	553
	Lateral aspect.			



A. T. Hollick adnat. del. et lith.

CRISTELLARIA.

Hanhart imp.





PLATE LXXI.

# PLATE LXXI.

## CRISTELLARIA.—POLYMORPHINA.

			Diam.	Page
Figures	1-3.— <i>Cristellaria echinata</i> , d'Orbigny, sp., . . . . .	.	.	554
	<i>b</i> , Front peripheral aspect; fig. 1, $\times 30$ ; figs. 2, 3, . . . . .	.	$\times 20$	
,,	4, 5.— <i>Cristellaria aculeata</i> , d'Orbigny, . . . . .	.	$\times 25$	555
	<i>b</i> , Front peripheral aspect.			
,,	6, 7.— <i>Cristellaria gemmata</i> , Brady, . . . . .	.	$\times 35$	554
	<i>b</i> , Front peripheral aspect.			
,,	8, 9.— <i>Cristellaria costata</i> , Fichtel and Moll, sp., . . . . .	.	$\times 35$	555
	<i>b</i> , Front peripheral aspect.			
	10.—Dimorphous specimen, the earlier chambers arranged as in <i>Cristellaria</i> , the later ones as in <i>Polymorphina</i> , . . . . .	.	$\times 50$	
,,	11.— <i>Polymorphina lactea</i> , Walker and Jacob, . . . . .	.	$\times 50$	559
,,	12.— <i>Polymorphina gibba</i> , d'Orbigny, . . . . .	.	$\times 40$	561
	<i>b</i> , Oral aspect.			
,,	13.— <i>Polymorphina amygdaloides</i> , Reuss, . . . . .	.	$\times 75$	560
	<i>b</i> , Oral aspect.			
,,	14.— <i>Polymorphina lactea</i> , Walker and Jacob,—elongate variety, . . . . .	.	$\times 75$	559
	<i>b</i> , Oral aspect.			
,,	15, 16.— <i>Polymorphina sororia</i> , Reuss, . . . . .	.	$\times 50$	562
,,	17-19.— <i>Polymorphina sororia</i> , var. <i>cuspidata</i> , nov., . . . . .	.	$\times 60$	563
	<i>b</i> , Oral aspect.			





PLATE LXXII.



## PLATE LXXII.

### POLYMORPHINA.

			Diam.	Page
Figures 1-3.—	<i>Polymorphina angusta</i> , Egger, . . . . .	×	45-60	563
	<i>b</i> , Oral aspect.			
„ 4.—	<i>Polymorphina sororia</i> , var. <i>cuspidata</i> , nov., . . . . .	×	50	563
	<i>b</i> , Oral aspect.			
„ 5, 6.—	<i>Polymorphina lanceolata</i> , Reuss, . . . . .	×	45	564
	<i>b, b</i> , Oral aspect.			
„ 7, 8.—	<i>Polymorphina ovata</i> , d'Orbigny, . . . . .	×	25	564
	<i>b</i> , Oral aspect.			
„ 9-11.—	<i>Polymorphina compressa</i> , d'Orbigny, . . . . .			565
	<i>b</i> , Oral aspect.			
	Fig. 9. × 18 diam.; fig. 10, × 25 diam.; fig. 11, . . . . .	×	40	
„ 12-15.—	<i>Polymorphina elegantissima</i> , Parker and Jones, . . . . .	×	50	566
	<i>b, b, b</i> , Oral aspect.			
„ 16, 17.—	<i>Polymorphina seguenzana</i> , n. sp., . . . . .	×	40	567
	<i>b</i> , Oral aspect.			
„ 18.—	<i>Polymorphina thouini</i> , d'Orbigny, . . . . .	×	18	567
„ 19.—	<i>Polymorphina communis</i> , d'Orbigny, . . . . .	×	50	568
„ 20.—	<i>Polymorphina problema</i> , d'Orbigny, . . . . .	×	40	568
	<i>b</i> , Oral aspect.			





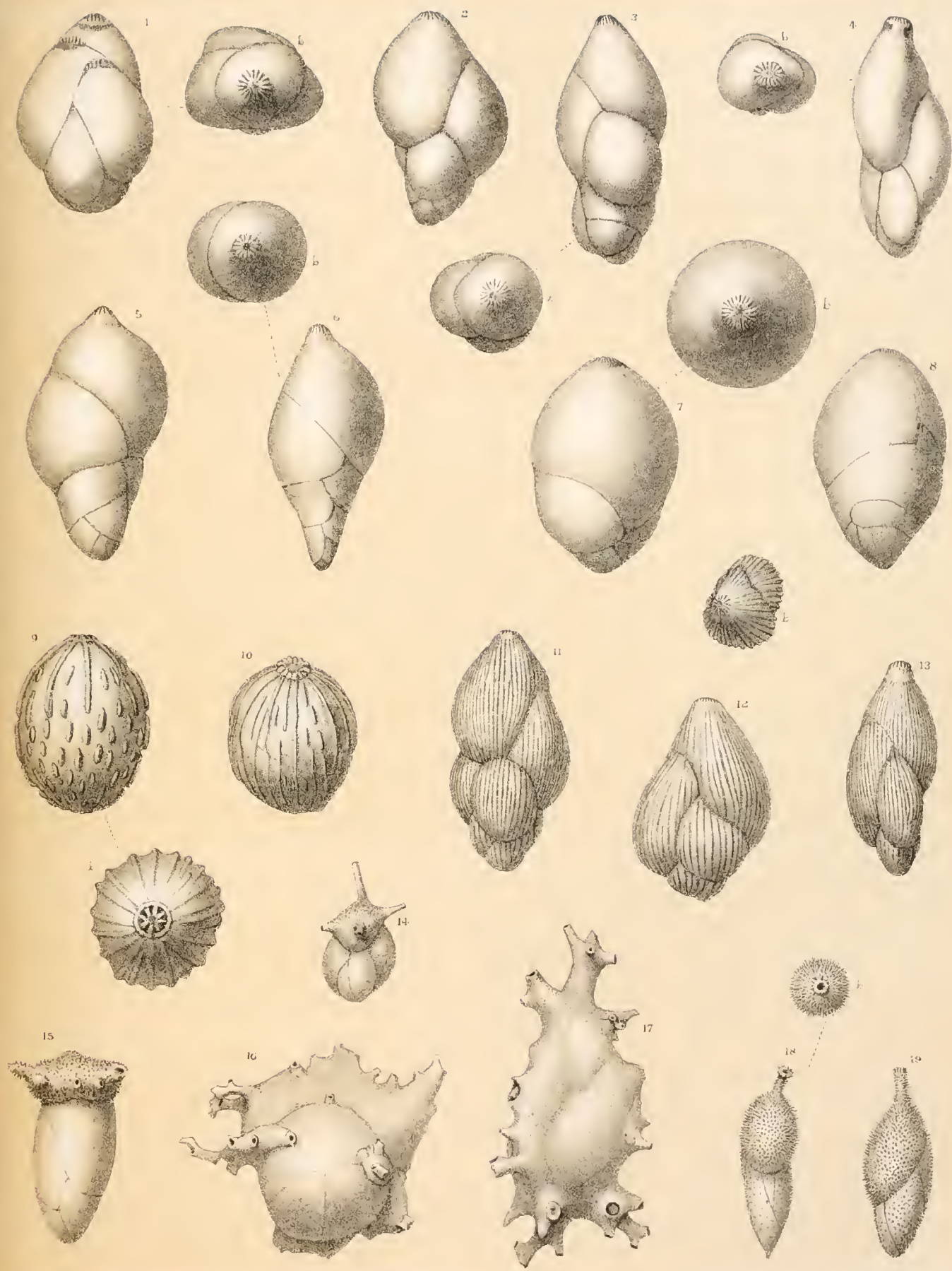
PLATE LXXIII.

# PLATE LXXIII.

## POLYMORPHINA.

			Diam.	Page	
Figure 1.—	<i>Polymorphina problema</i> , d'Orbigny,	.	×	40	568
	<i>b</i> , Oral aspect.				
„ 2-4.—	<i>Polymorphina oblonga</i> , d'Orbigny,	.	×	40	569
	<i>b</i> , Oral aspect.				
„ 5-8.—	<i>Polymorphina rotundata</i> , Bornemann, sp.,	.	×	30	570
	<i>b, b</i> , Oral aspect.				
„ 9, 10.—	<i>Polymorphina myristiformis</i> , Williamson,	.	×	60-75	571
	<i>b</i> , Oral aspect.				
„ 11-13.—	<i>Polymorphina regina</i> , Brady, Parker, and Jones,	.	×	35-50	571
	<i>b</i> , Oral aspect.				
„ 14.—	<i>Polymorphina lactea</i> , fistulose form,	.	×	50	560
„ 15.—	<i>Polymorphina sororia</i> , fistulose form,	.	×	30	562
„ 16.—	<i>Polymorphina gibba</i> , fistulose form,	.	×	35	562
„ 17.—	<i>Polymorphina compressa</i> , fistulose form,	.	×	50	566
„ 18, 19.—	<i>Polymorphina longicollis</i> , Brady,	.	×	50-60	572
	<i>b</i> , Oral aspect.				





POLYMORPHINA

Harbort



PLATE LXXIV.

# PLATE LXXIV.

## UVIGERINA.

		Diam.	Page
Figures 1-3.— <i>Uvigerina canariensis</i> , d'Orbigny,	.	.	573
Lateral aspect ; fig. 1, $\times 50$ diam.; fig. 2, $\times 60$ ; fig. 3,	$\times$	75	
„ 4-7.— <i>Uvigerina tenuistriata</i> , Reuss,	.	.	574
Figs. 4, 5. Lateral aspect ; <i>b</i> , oral aspect,	$\times$	50	
Figs. 6, 7. Lateral aspect ; <i>b</i> , oral aspect,	$\times$	45	
„ 8-10.— <i>Uvigerina schwageri</i> , n. sp.,	$\times$	30	575
Figs. 8, 9. Lateral aspect ; <i>b</i> , oral aspect.			
Fig. 10. Young specimen.			
„ 11-14.— <i>Uvigerina pygmaea</i> , d'Orbigny,	.	.	575
Figs. 11, 12. Typical form, lateral aspect ; <i>b</i> , oral aspect,	$\times$	50	
Figs. 13, 14. Elongate variety, lateral aspect ; <i>b</i> , oral aspect,	$\times$	60	
„ 15-18.— <i>Uvigerina angulosa</i> , Williamson,	$\times$	60	576
Figs. 15-18. Lateral aspect ; <i>b</i> , oral aspect.			
„ 19, 20.— <i>Uvigerina angulosa</i> , var. <i>spinipes</i> , Brady,	$\times$	60	577
Figs. 19, 20. Lateral aspect ; <i>b</i> , oral aspect.			
„ 21, 23.— <i>Uvigerina porrecta</i> , Brady,	$\times$	70	577
Lateral aspect.			
„ 24-26.— <i>Uvigerina</i> , sp.,	$\times$	40-55	575
Intermediate specimens connecting <i>Uvigerina pygmaea</i> with <i>Uvigerina aculeata</i> .			



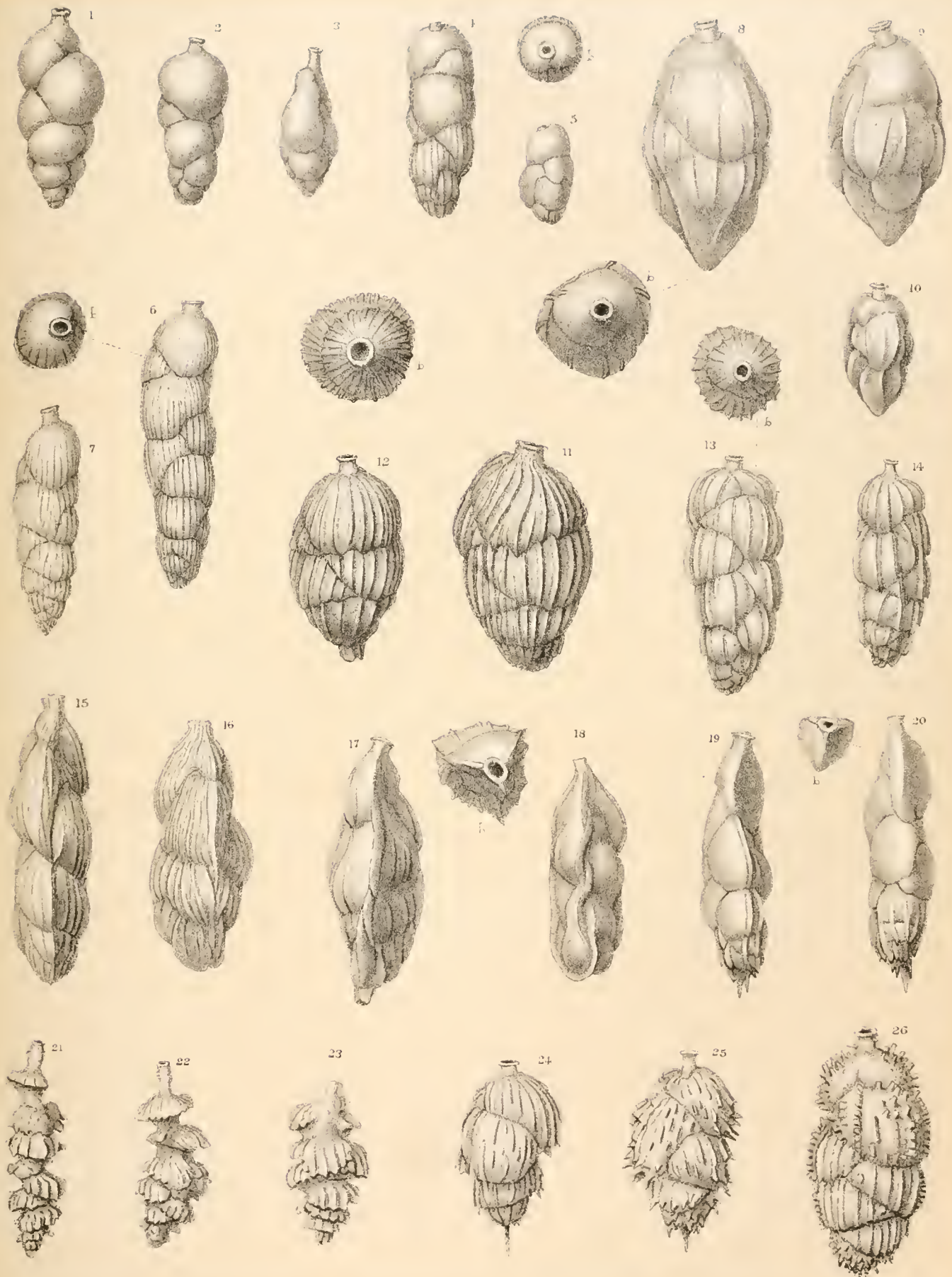






PLATE LXXV.

# PLATE LXXV.

## UVIGERINA.—SAGRINA.

			Diam.	Page
Figures 1-3.—	<i>Uvigerina aculeata</i> , d'Orbigny, . . . . .	×	35	578
	Fig. 2. Typical specimen—lateral aspect; <i>b</i> , oral aspect.			
	Figs. 1, 3. Intermediate specimens connecting the species with the eostate forms, . . . . .			575
„ 4, 5.—	<i>Uvigerina brunnensis</i> , Karrer, . . . . .	×	45	577
	Lateral aspect.			
„ 6-8.—	<i>Uvigerina asperula</i> , Czjzek, . . . . .	×	50	578
	Figs. 6, 7, 8. Lateral aspect; <i>b</i> , oral aspect.			
„ 9.—	<i>Uvigerina asperula</i> , var. <i>auberiana</i> , d'Orbigny, . . . . .	×	40	579
	Lateral aspect.			
„ 10, 11.—	<i>Uvigerina asperula</i> , var. <i>ampullacea</i> , nov., . . . . .	×	60	579
	Figs. 10, 11. Lateral aspect; <i>b</i> , oral aspect.			
„ 12-14.—	<i>Uvigerina interrupta</i> , Brady, . . . . .	×	70	580
	Lateral aspect.			
„ 15-17.—	<i>Sagrina columellaris</i> , Brady, . . . . .	×	45	581
	Figs. 15, 16, 17. Lateral aspect; <i>b</i> , oral aspect.			
„ 18-20.—	<i>Sagrina bifrons</i> , Brady, . . . . .	×	50	582
	Figs. 18, 19, 20. Lateral aspect; <i>b</i> , oral aspect.			
„ 21-24.—	<i>Sagrina raphanus</i> , Parker and Jones, . . . . .			585
	Figs. 21, 22, 23. Lateral aspect; <i>b</i> , <i>b</i> , oral aspect, . . . . .	×	60	
	Figs. 24. Elongate tapering variety, . . . . .	×	45	
„ 25, 26.—	<i>Sagrina striata</i> , Schwager, . . . . .	×	45	584
	Lateral aspect.			

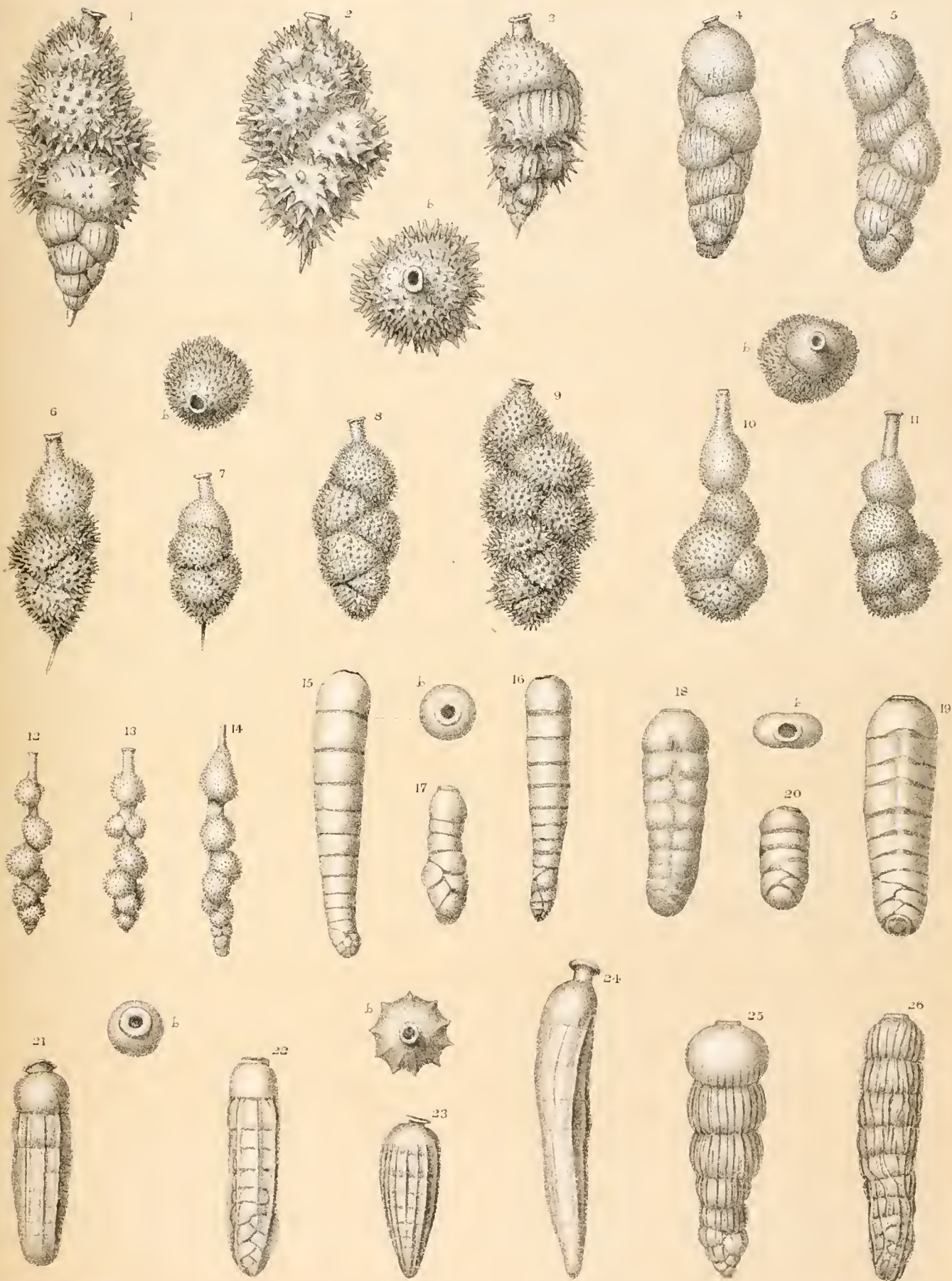






PLATE LXXVI.

# PLATE LXXVI.

## SAGRINA.—RAMULINA.—NUBECULARIA.

		Diam.	Page
Figures 1-3.— <i>Sagrina dimorpha</i> , Parker and Jones, . . . . .	×	60	582
Figs. 1, 2, 3. Lateral aspect; <i>b</i> , oral aspect.			
„ 4-10.— <i>Sagrina virgula</i> , Brady, . . . . .	.	.	583
Figs. 4-7. Typical shallow-water form, . . . . .	×	70	
Figs. 8-10. Monomorphous thicker-shelled specimens from deeper water, . . . . .	×	50-70	
„ 11-16.— <i>Nubecularia divaricata</i> , Brady, . . . . .	×	70	136
Figs. 11-14. Lateral aspect.			
Figs. 15, 16. Oral end of the test, showing the grooved tubular neck and everted lip.			
„ 17-19.— <i>Sagrina</i> (?) <i>tessellata</i> , n. sp., . . . . .	.	.	585
Figs. 17, 18. Lateral aspect; <i>b</i> , oral aspect, . . . . .	×	75	
Fig. 19. Terminal segment more highly magnified, . . . . .	×	150	
„ 20, 21.— <i>Sagrina</i> (?) <i>annulata</i> , n. sp., . . . . .	.	.	586
Fig. 20. Lateral aspect; <i>b</i> , oral aspect, . . . . .	×	60	
Fig. 21. Terminal segment more highly magnified, . . . . .	×	100	
„ 22-28.— <i>Ramulina globulifera</i> , Brady, . . . . .	×	35	587

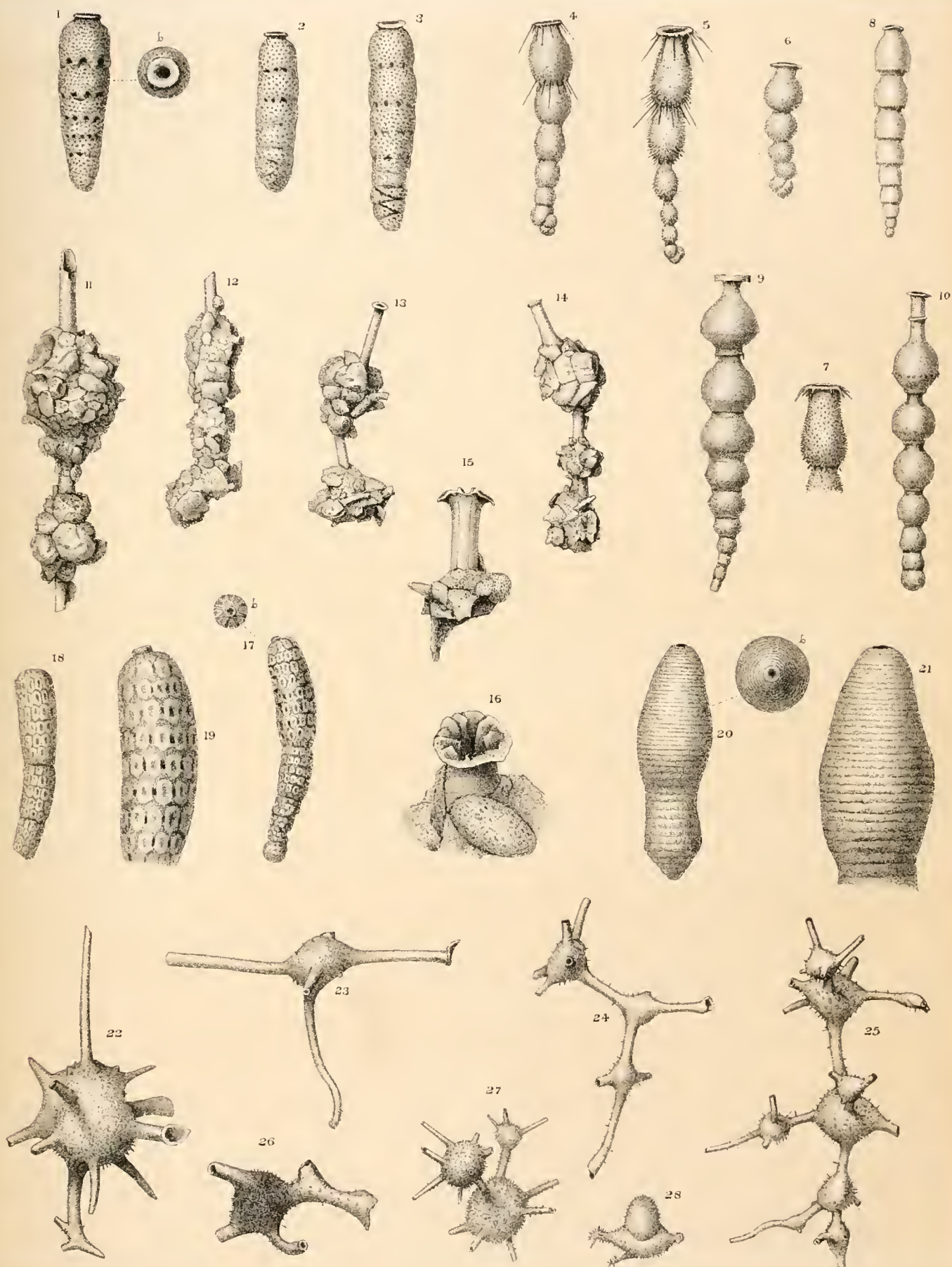




PLATE LXXVII.



# PLATE LXXVII.

## GLOBIGERINA.

	Diam.	Page
<i>Globigerina bulloides</i> , d'Orbigny, . . . . .	× 200	593
Surface specimen, immediately after being taken from the sea; drawn by Mr. Wild .		

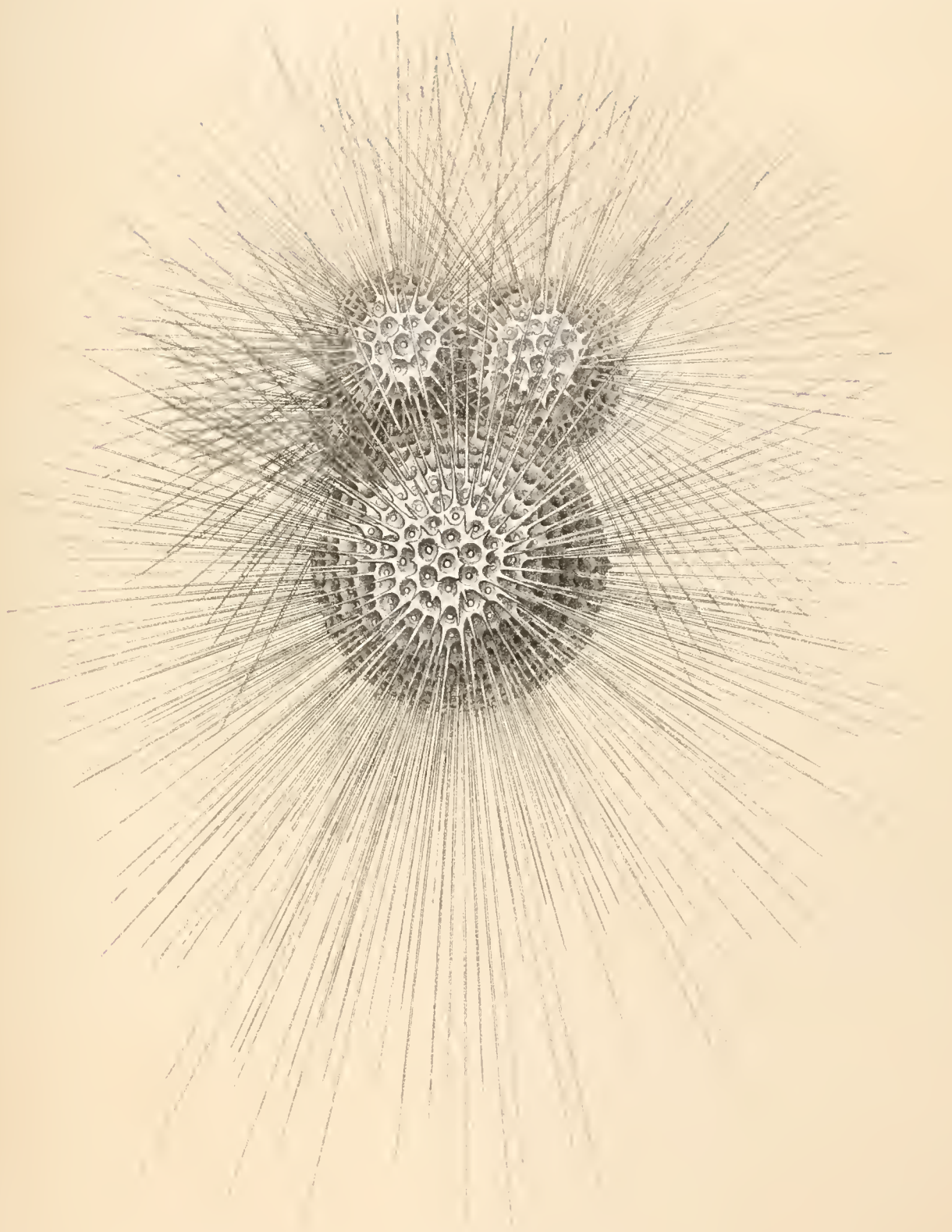




PLATE LXXVIII.

# PLATE LXXVIII.

## ORBULINA.

	Diam.	Page
<i>Orbulina universa</i> , d'Orbigny, . . . . .	× 40.	608
Surface specimen, immediately after being taken from the sea; drawn by Mr. Wild.		



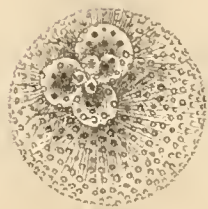




PLATE LXXIX.

# PLATE LXXIX.

## GLOBIGERINA.

*a*, Superior aspect; *b*, inferior aspect; *c*, peripheral aspect.

		Diam.	Page
Figures 1-7.—	<i>Globigerina bulloides</i> , d'Orbigny, . . . . .	× 50	593
	Figs. 1, 2. Var. <i>triloba</i> , Reuss; spinous pelagic specimens, . . . . .	.	595
	Figs. 3, 4. Typical form; non-spinous pelagic specimens, . . . . .	.	593
	Figs. 5-7. Typical form, bottom specimens; fig. 5, young example; fig. 6, adult specimen of the starved form common on the British coast; fig. 7, adult typical shell, . . . . .	.	593
„ 8-10.—	<i>Globigerina inflata</i> , d'Orbigny, . . . . .	× 50	601
	Figs. 8, 9. Bottom specimens.		
	Fig. 10. Pelagic specimen.		
„ 11-16.—	<i>Globigerina rubra</i> , d'Orbigny, . . . . .	× 50	602
	Figs. 11-15. Bottom specimens; figs. 11, 12, superior aspect, showing supplementary apertures; fig. 13, inferior aspect; fig. 14, peripheral aspect.		
	Fig. 16. Young, spinous, pelagic specimen.		
„ 17.—	<i>Globigerina dubia</i> , Egger, . . . . .	× 50	595
	Bottom specimen.		

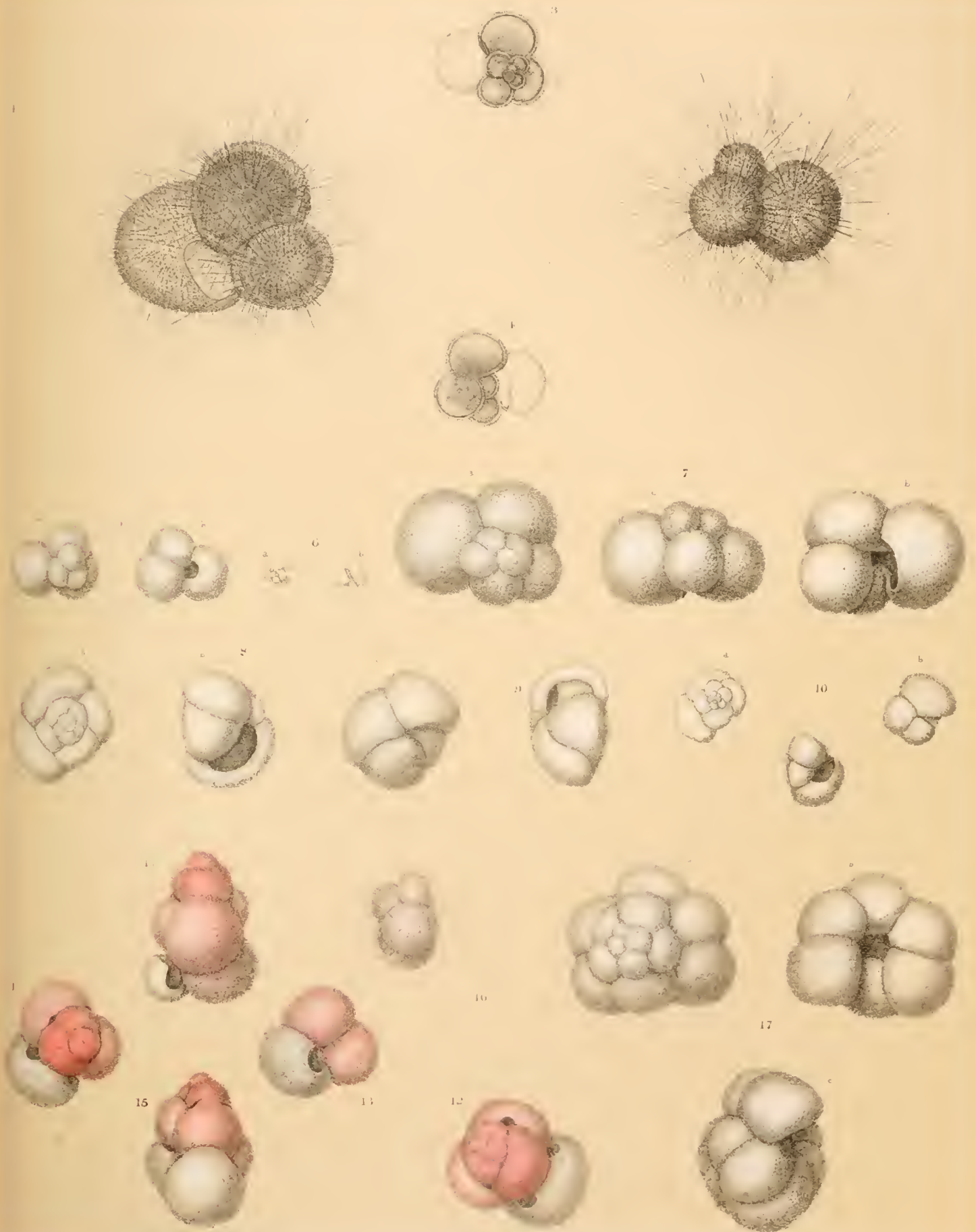




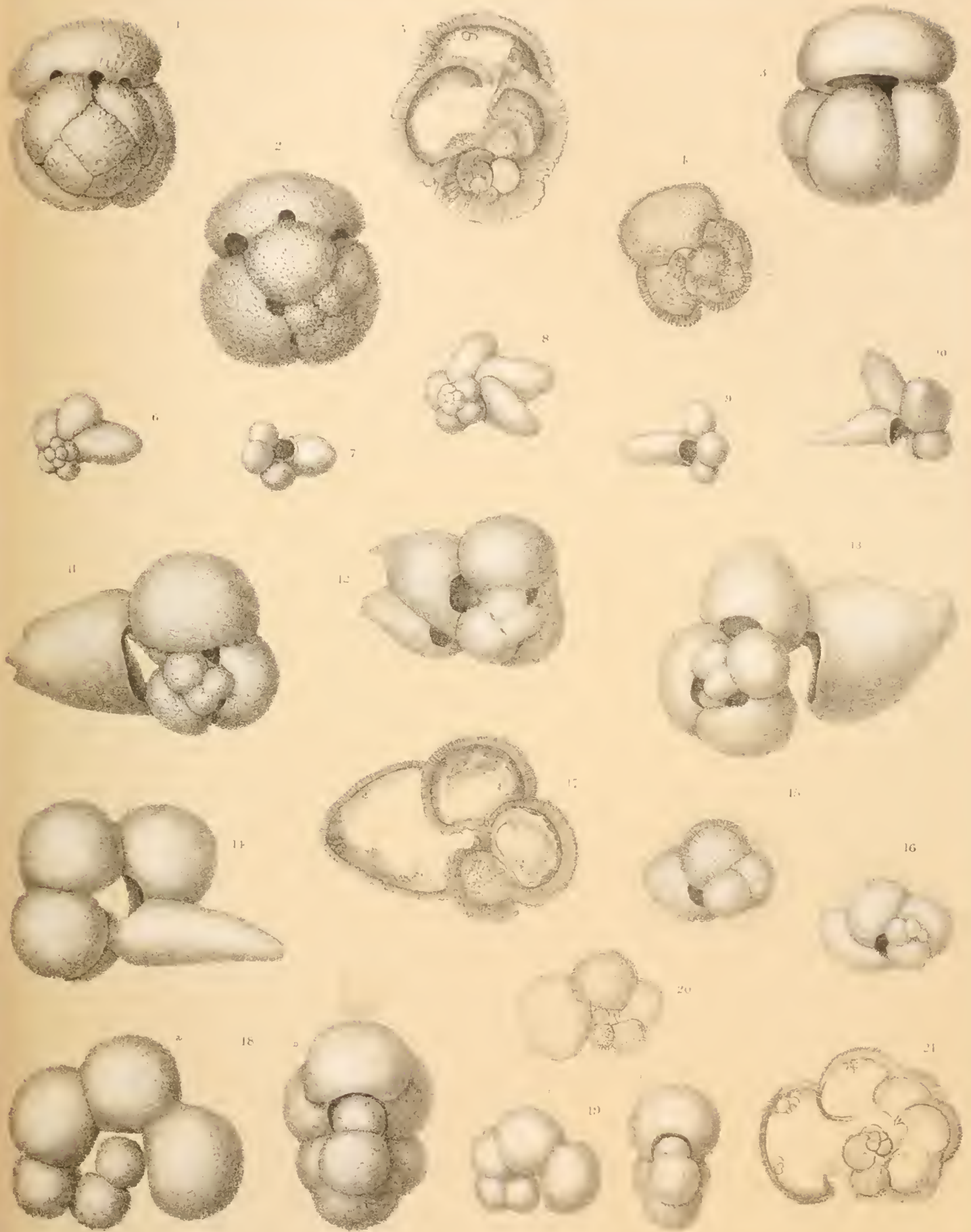


PLATE LXXX.

# PLATE LXXX.

## GLOBIGERINA.

	Diam.	Page
Figures 1-5.— <i>Globigerina conglobata</i> , Brady, . . . . .	× 50	603
Figs. 1-3. Bottom specimens; figs. 1, 2, superior aspect, showing supplementary apertures; fig. 3, inferior aspect.		
Fig. 4. Spinous pelagic specimen.		
Fig. 5. Section of the shell, showing its thickness, and the coarse tubulation of the walls.		
„ 6-10.— <i>Globigerina digitata</i> , Brady, . . . . .	× 50	599
Bottom specimens; figs. 6, 8, superior aspect; figs. 7, 9, inferior aspect; fig. 10, peripheral aspect.		
„ 11-17.— <i>Globigerina sacculifera</i> , Brady, . . . . .	× 50	604
Figs. 11-14. Bottom specimens; figs. 11-13, superior aspect; fig. 14, inferior aspect.		
Figs. 15, 16. Small pelagic specimens, in the spinous condition.		
Fig. 17. Section of the shell, showing its thickness and the coarse tubulation of the walls.		
„ 18-21.— <i>Globigerina æquilateralis</i> , Brady, . . . . .	× 50	605
Figs. 18, 19. Bottom specimens; <i>a,a</i> , lateral aspect; <i>b,b</i> , peripheral aspect.		
Fig. 20. Surface specimen.		
Fig. 21. Section of the shell.		



A. H. S. and H. S. S. 1875

GLOBIGERINA





PLATE LXXXI.

# PLATE LXXXI.

## GLOBIGERINA.—ORBULINA.

	Diam.	Page
Figure 1.— <i>Globigerina dutertrei</i> , d'Orbigny, . . . . .	× 50	601
Bottom specimen; <i>a</i> , superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„ 2, 3.— <i>Globigerina bulloides</i> , var. <i>triloba</i> , Reuss, . . . . .	× 50	595
Bottom specimens.		
„ 4, 5.— <i>Globigerina helicina</i> , d'Orbigny, . . . . .	× 50	605
Fig. 4. Inferior aspect; fig. 5, superior aspect.		
„ 6, 7.— <i>Globigerina</i> ,—wild-growing monstrous forms, . . . . .	× 50	593
Bottom specimens.		
„ 8-26.— <i>Orbulina universa</i> , d'Orbigny, . . . . .		608
Figs. 8-11. Bottom specimens; fig. 10, small dark-coloured variety common in shallow water on the British coast, . . . . .	× 50	
Figs. 12-14. Surface specimens, . . . . .	× 50	
Figs. 15-17. Small bottom specimens in which the Globigerine shell is not completely enveloped by the Orbuline chamber, . . . . .	× 50	
Figs. 18, 19. Internal Globigerine shells partially filled with sarcode; from balsam-mounted specimens, . . . . .	× 50	
Figs. 20, 21. Two-chambered specimens. Such forms constitute the <i>Globigerina bilobata</i> of d'Orbigny, . . . . .	× 50	
Figs. 22, 23. Portions of the test more highly magnified; showing (22) the large and small perforations, and (23) a granular or tuberculate condition of the exterior, . . . . .	× 100	
Fig. 24. Portion of a spinous shell, . . . . .	× 50	
Fig. 25. Bottom specimen with a general aperture (?); copied from Williamson, . . . . .	× 50	
Fig. 26. Bottom specimen, showing the laminated condition of the walls, . . . . .	× 50	
„ 27.— <i>Orbulina porosa</i> , Terquem, . . . . .	× 50	611

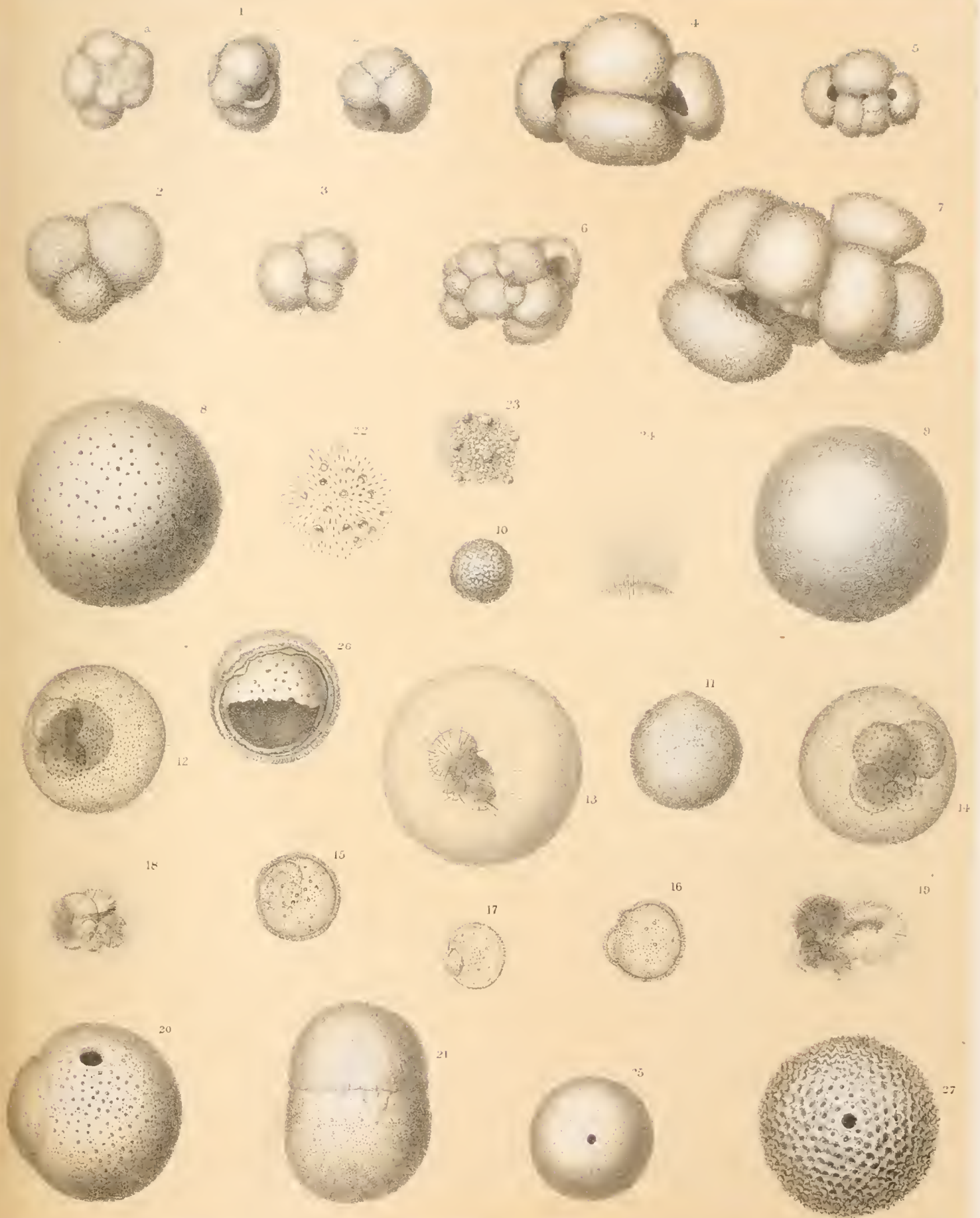




PLATE LXXXII.

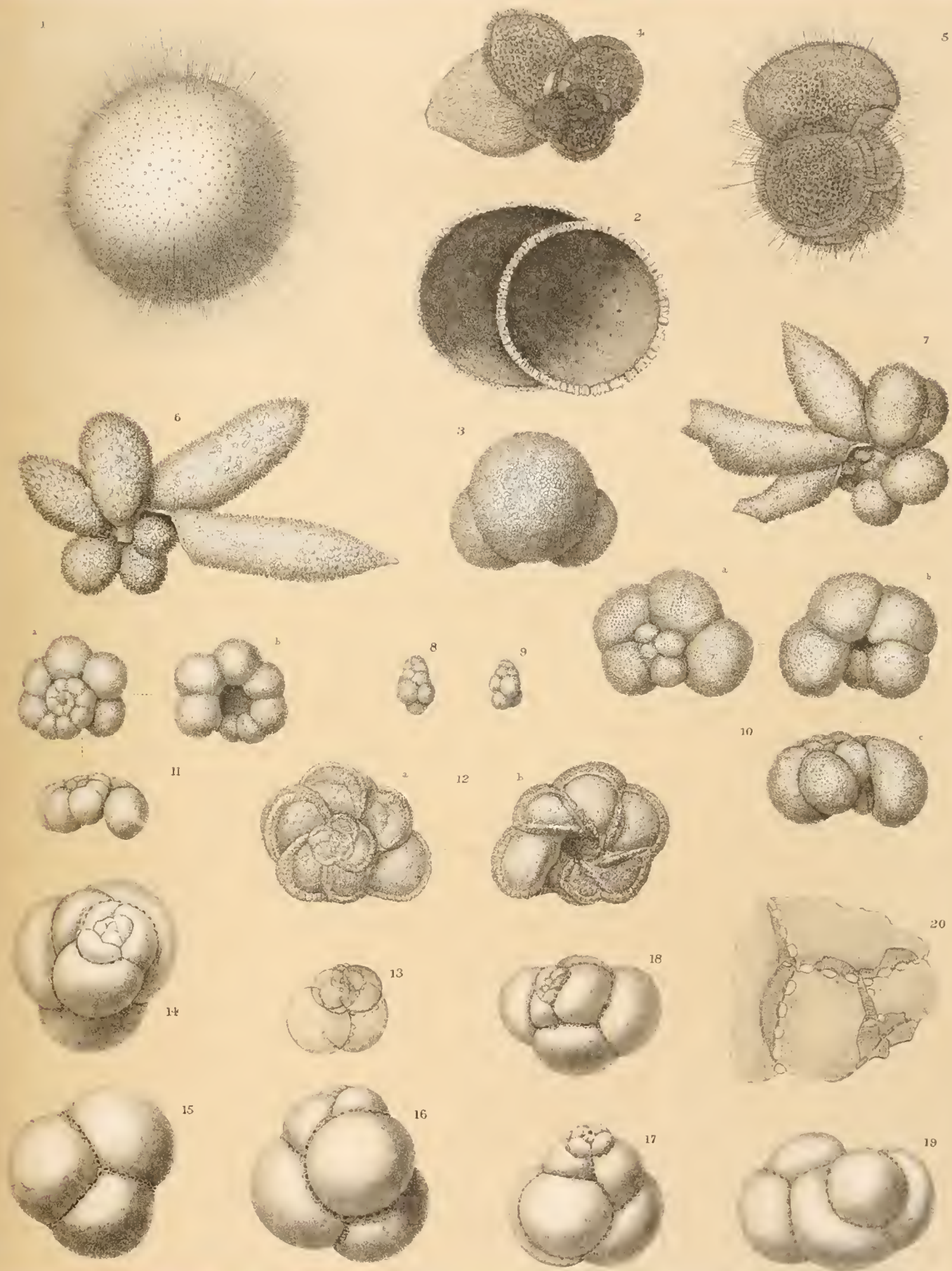


# PLATE LXXXII.

## GLOBIGERINA.—ORBULINA.—CANDEINA.

*a*, Superior aspect; *b*, inferior aspect; *c*, peripheral aspect.

			Diam.	Page
Figures 1-3.—	<i>Orbulina universa</i> , d'Orbigny, . . . . .	×	50	608
	Fig. 1. Spinous pelagic specimen.			
	Fig. 2. Two-chambered shell laid open.			
	Fig. 3. Specimen with two supplementary chambers.			
„	4.— <i>Globigerina sacculifera</i> , Brady, . . . . .	×	50	604
	Adult pelagic specimen.			
„	5.— <i>Globigerina conglobata</i> , Brady, . . . . .	×	50	603
	Adult pelagic specimen.			
„	6, 7.— <i>Globigerina digitata</i> , Brady, . . . . .	×	50	599
	Large bottom specimens.			
„	8, 9.— <i>Globigerina</i> , sp., . . . . .	×	50	603
	Minute <i>Globigerinæ</i> ; general contour resembling that of <i>Globigerina elevata</i> , d'Orbigny, and <i>Globigerina trochoides</i> , Reuss.			
„	10.— <i>Globigerina (cretacea)</i> , d'Orbigny?, . . . . .	×	50	596
	Bottom specimen.			
„	11.— <i>Globigerina cretacea</i> , d'Orbigny, . . . . .	×	50	596
	Fossil specimen.			
„	12.— <i>Globigerina linnaëana</i> , d'Orbigny, sp., . . . . .	×	50	598
	Fossil specimen.			
„	13-20.— <i>Candeina nitida</i> , d'Orbigny, . . . . .			622
	Fig. 13. Pelagic specimen, . . . . .	×	50	
	Figs. 14-18. Bottom specimens; figs. 14, 18, superior aspect; fig. 15, inferior aspect; figs. 16, 17, peripheral aspect, . . . . .	×	50	
	Fig. 19. Monstrous specimen, . . . . .	×	50	
	Fig. 20. Portion of the shell more highly magnified, showing the sutural apertures and the minute perforation of the walls, . . . . .	×	100	



Hollick ad nat. del. et lith.

GLOBIGERINA (Globigerina) Orbicula, CANDEINA

H. n. h. a. n. g.



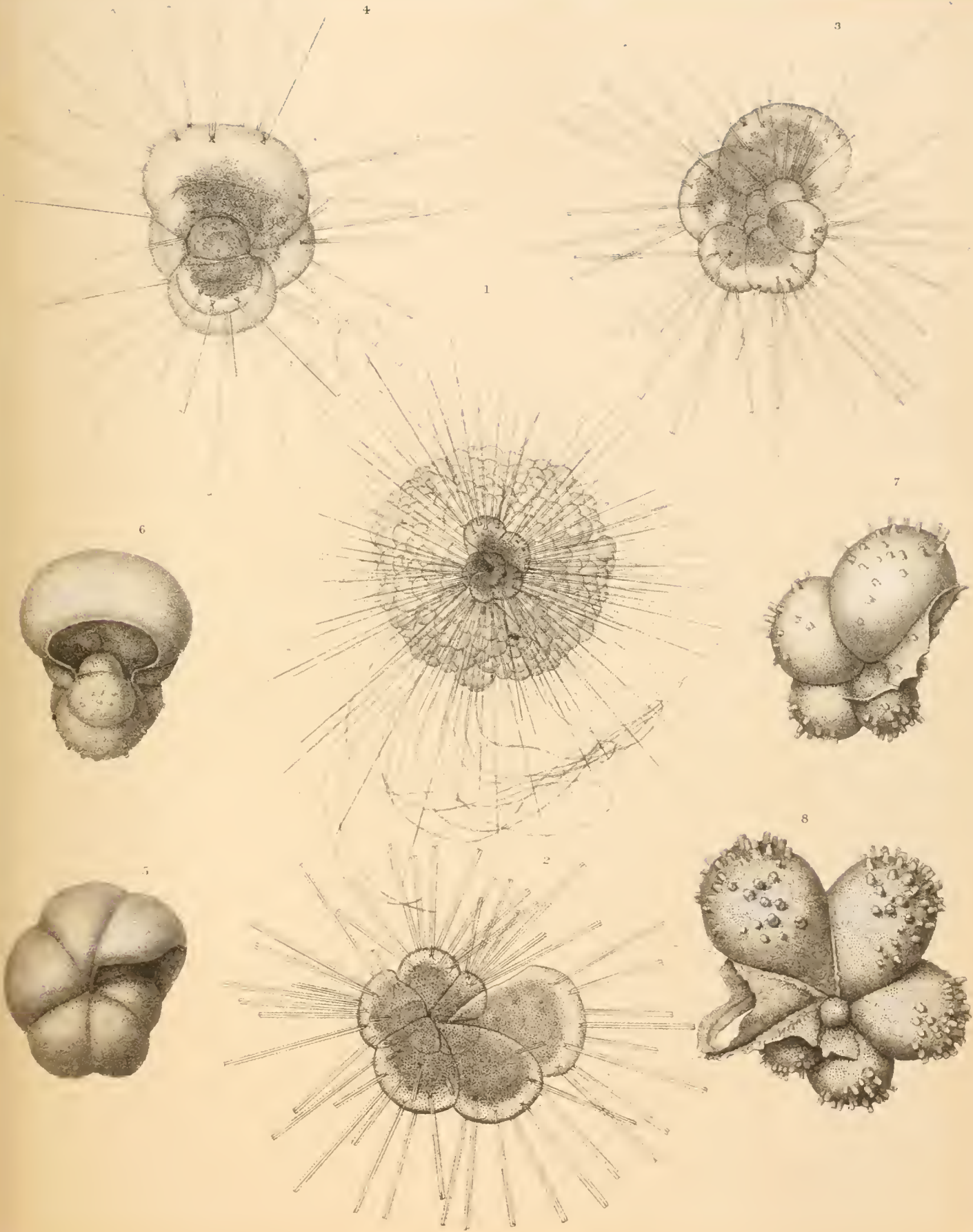
PLATE LXXXIII

# PLATE LXXXIII.

## HASTIGERINA.

	Diam.	Page
Figures 1-8.— <i>Hastigerina pelagica</i> , d'Orbigny, sp., . . . . .		613
Fig. 1. Living specimen; the spinous shell enveloped in a lobulated mass of sarcode, with pseudo- podia extended. From a drawing by Mr. Wild, . . . . .	×	43
Fig. 2. From a fresh specimen, drawn by Mr. Wild, . . . . .	×	47
Figs. 3, 4. From specimens mounted in glycerine, . . . . .	×	50
Figs. 5-8. Dead and empty shells, in the worn and broken condition in which they are usually found in bottom-dredgings, . . . . .	×	50





And & A. H. Hollick, ad nat. de. A. H. Hollick lith.

HASTIGERINA

Hanhart del.



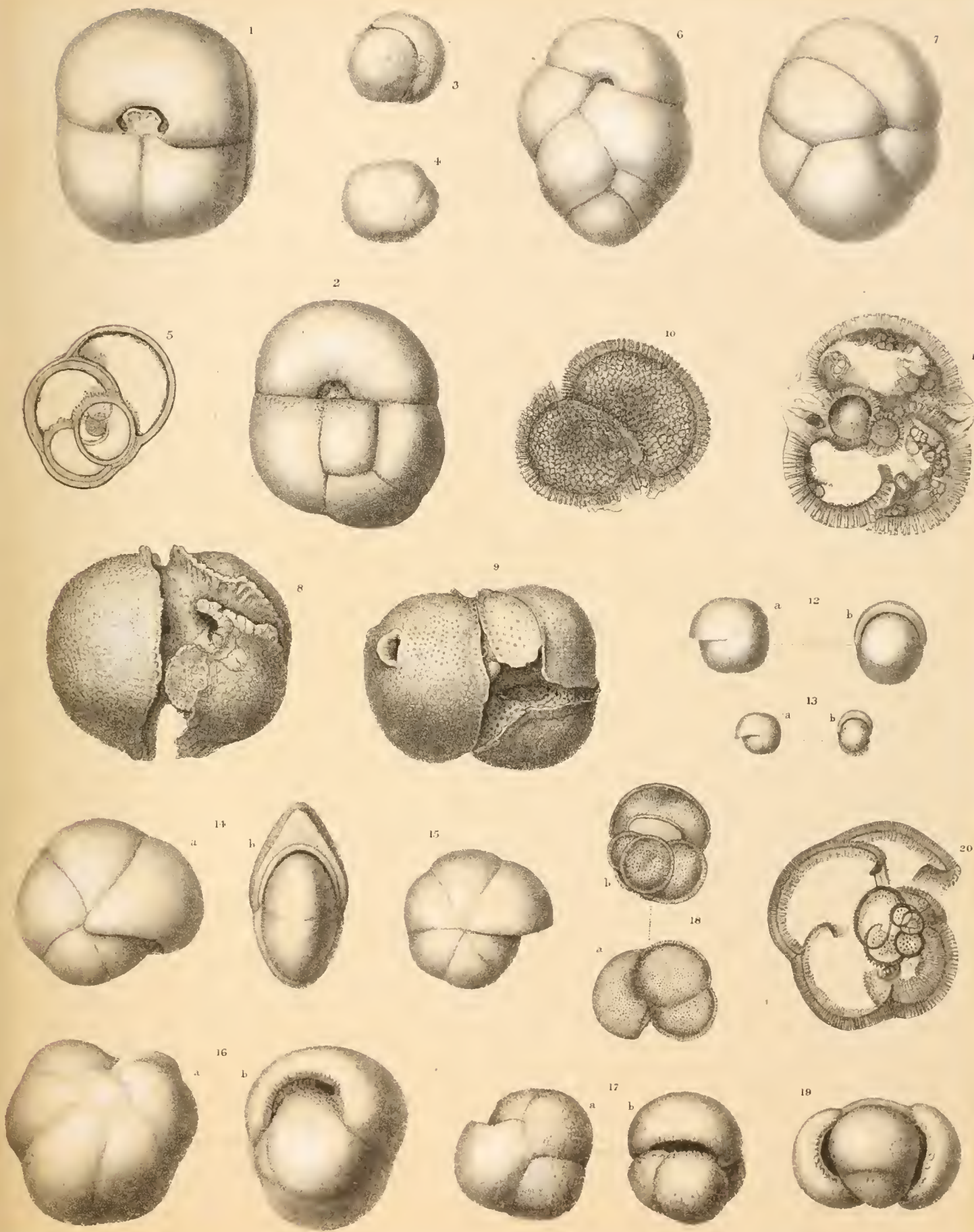
PLATE LXXXIV.

# PLATE LXXXIV.

## SPHÆROIDINA.—PULLENIA.

	Diam.	Page
Figures 1-7.— <i>Sphæroidina bulloides</i> , d'Orbigny, . . . . .	× 50	620
Figs. 1-4, 6, 7. Specimens of various forms, in different aspects.		
Fig. 5. Section of the shell, showing the laminated condition of the walls.		
„ 8-11.— <i>Sphæroidina dehiscens</i> , Parker and Jones, . . . . .	× 50	621
Figs. 8, 9. Bottom specimens.		
Fig. 10. Surface specimen.		
Fig. 11. Section of the shell, showing the thickness of the walls and their coarse tubulation.		
„ 12, 13.— <i>Pullenia sphaeroides</i> , d'Orbigny, sp., . . . . .	× 50	615
<i>a, a</i> , Lateral aspect; <i>b, b</i> , peripheral aspect.		
„ 14, 15.— <i>Pullenia quinqueloba</i> , Reuss, . . . . .	× 50	617
Figs. 14 <i>a</i> , 15. Lateral aspect; fig. 14 <i>b</i> , peripheral aspect.		
„ 16-20.— <i>Pullenia obliquiloculata</i> , Parker and Jones, . . . . .	× 50	618
Figs. 16, 17. Bottom specimens. <i>a, a</i> , Lateral aspect <i>b, b</i> , peripheral aspect.		
Fig. 18. Surface specimen.		
Fig. 19. Monstrous example, isomorphous with <i>Globigerina helicina</i> .		
Fig. 20. Section of the shell, showing the thickness and tubulation of the walls, and the infolding of the superior margin of the septal apertures.		





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SPHÆROIDINA — PULLENIA

Lennart imp





PLATE LXXXV.

# PLATE LXXXV.

## SPIRILLINA.

		Diam.	Page
Figures 1-5.— <i>Spirillina vivipara</i> , Ehrenberg, . . . . .	×	100	630
Figs. 1, 2 <i>a</i> , 3-5. Lateral aspect; fig. 2 <i>b</i> , peripheral aspect.			
„ 6, 7.— <i>Spirillina obconica</i> , Brady, . . . . .	×	120	630
Figs. 6 <i>a</i> , 7. Superior lateral aspect; fig. 6 <i>b</i> , inferior aspect; fig. 6 <i>c</i> , peripheral aspect.			
„ 8-11.— <i>Spirillina inequalis</i> , Brady, . . . . .	×	120	631
Fig. 8. Superior aspect; fig. 9, inferior aspect; figs. 10, 11, peripheral aspect.			
„ 12-16.— <i>Spirillina tuberculata</i> , Brady, . . . . .			631
Fig. 12. Young specimen, lateral aspect, . . . . .	×	50	
Figs. 13, 15. Adult specimens, lateral aspect, . . . . .	×	50	
Fig. 14. Large example. The partially broken shell exposing a thread of nearly black dried sareode, . . . . .	×	45	
Fig. 16. Peripheral aspect, . . . . .	×	45	
„ 17.— <i>Spirillina limbata</i> , var. <i>denticulata</i> , nov., . . . . .	×	50	632
Lateral aspect.			
„ 18-21.— <i>Spirillina limbata</i> , Brady, . . . . .			632
Fig. 18. Lateral aspect; fig. 21, peripheral aspect, . . . . .	×	60	
Fig. 19. Lateral aspect; fig. 20, peripheral aspect, . . . . .	×	50	
„ 22-25.— <i>Spirillina decorata</i> , n. sp., . . . . .	×	50	633
Figs. 22-24. Lateral aspect; fig. 25, peripheral aspect.			







PLATE LXXXVI.

(ZOOLOGICAL CHALLENGER.—PART XXII.—1884.)—Y.

# PLATE LXXXVI.

## PATELLINA.—DISCORBINA.

		Diam.	Page
Figures 1-7.— <i>Patellina corrugata</i> , Williamson, . . . . .	.	.	634
Figs. 1-3. Superior aspect; figs. 4, 5, inferior aspect,	×	120	
Figs. 6, 7. Peripheral aspect (small specimens), . . . . .	×	150	
„ 8, 13.— <i>Discorbina globularis</i> , d'Orbigny, sp., . . . . .	.	.	643
Fig. 8. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peri-			
pheral aspect, . . . . .	×	75	
Fig. 13. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peri-			
pheral aspect, . . . . .	×	50	
„ 9, 12.— <i>Discorbina vilardeboana</i> , d'Orbigny, sp., . . . . .	×	75	645
<i>a, a</i> , Superior aspect; <i>b, b</i> , inferior aspect; <i>c, c</i> , peri-			
pheral aspect. . . . .			
„ 10, 11.— <i>Discorbina araucana</i> , d'Orbigny, sp., . . . . .	×	75-90	645
<i>a, a</i> , Superior aspect; <i>b, b</i> , inferior aspect; <i>c, c</i> , peripheral			
aspect. . . . .			





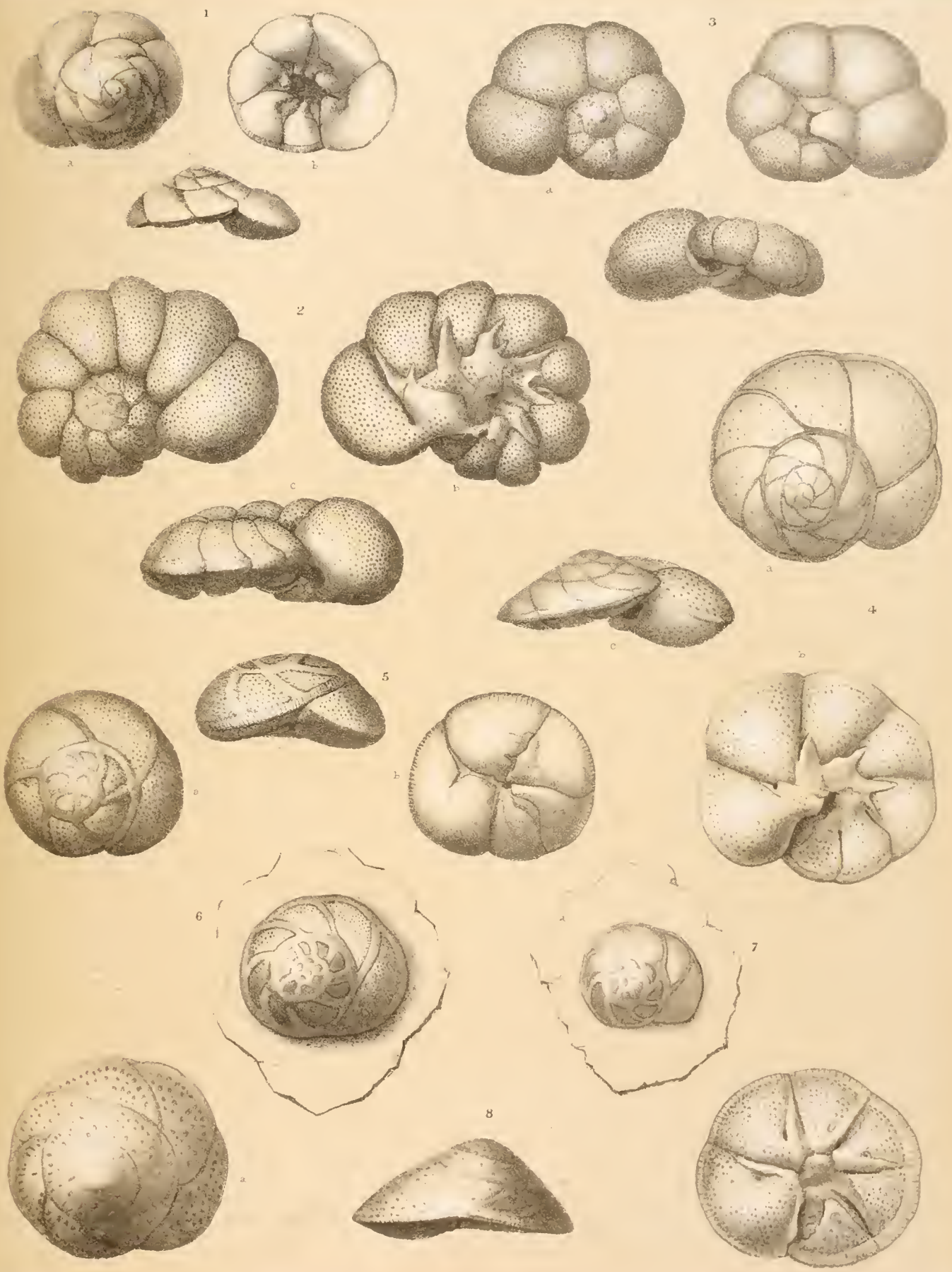
PLATE LXXXVII.



# PLATE LXXXVII.

## DISCORBINA.

		Diam.	Page
Figures 1, 4.—	<i>Discorbina rosacea</i> , d'Orbigny, sp., . . . . .	.	644
	Fig. 1. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, . . . . .	× 100	
	Fig. 4. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, . . . . .	× 50	
„ 2.—	<i>Discorbina vesicularis</i> , Lamarek, sp., . . . . .	× 35	651
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„ 3.—	<i>Discorbina rugosa</i> , d'Orbigny, sp., . . . . .	× 60	652
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„ 5–7.—	<i>Discorbina valvulata</i> , d'Orbigny, sp., . . . . .	.	644
	Fig. 5. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, . . . . .	× 75	
	Figs. 6, 7. Small adherent specimens, . . . . .	× 100	
„ 8.—	<i>Discorbina turbo</i> , d'Orbigny, sp., . . . . .	× 60	642
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		



W. M. C. ad nat. del. et lith.

DISCORBINA

Hauke



PLATE LXXXVIII.

# PLATE LXXXVIII.

## DISCORBINA.

		Diam.	Page
Figure	1.— <i>Discorbina isabelleana</i> , d'Orbigny, sp., . . . . .	× 100	646
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	2.— <i>Discorbina vilardeboana</i> , d'Orbigny, sp., . . . . .	× 100	645
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	3.— <i>Discorbina patelliformis</i> , n. sp., . . . . .	× 100	647
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	4-8.— <i>Discorbina orbicularis</i> , Terquem, sp., . . . . .	.	647
	Figs. 4 <i>a</i> , 5 <i>a</i> , 6, 8 <i>a</i> . Superior aspect; figs. 4 <i>b</i> , 5 <i>b</i> , 7, 8 <i>b</i> , inferior aspect; figs. 4 <i>c</i> , 5 <i>c</i> , 8 <i>c</i> , peripheral aspect.		
	Fig. 4, × 90 diam.; fig. 5, × 100 diam.; fig. 6, × 50 diam.; fig. 7, × 75 diam.; fig. 8, × 60 diam.		
„	9.— <i>Discorbina eximia</i> , Hantken, . . . . .	× 50	646
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect.		
„	10.— <i>Discorbina pulvinata</i> , n. sp., . . . . .	× 100	650
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect.		





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DISCORBINA.

Hanhart imp



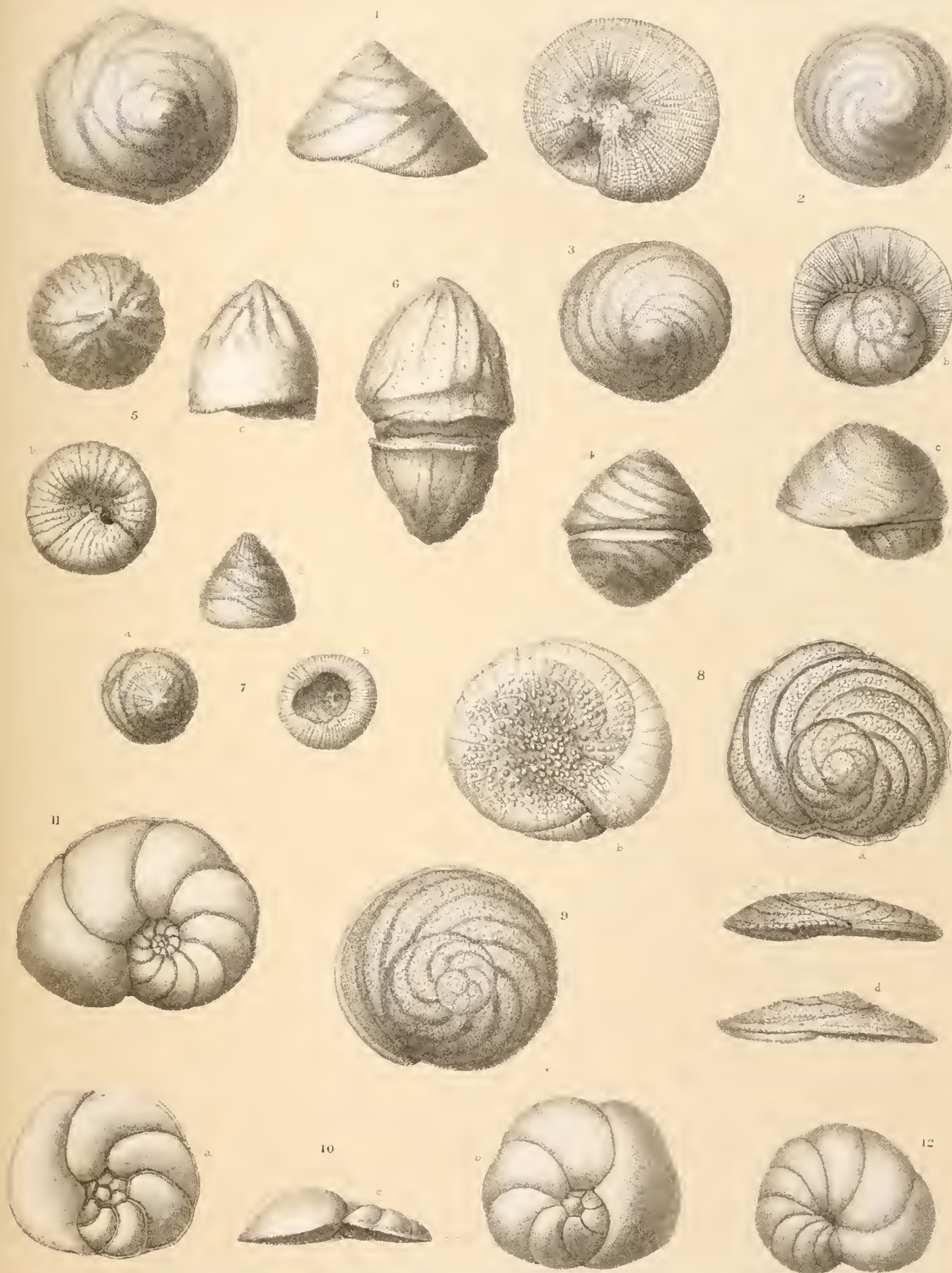
PLATE LXXXIX.

# PLATE LXXXIX.

## DISCORBINA.

			Diam.	Page
Figure	1.— <i>Discorbina patelliformis</i> , n. sp., . . . . .	×	100	647
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2-4.— <i>Discorbina pileolus</i> , d'Orbigny, sp., . . . . .	×	100	649
	Figs. 2 <i>a</i> , 3. Superior aspect; fig. 2 <i>b</i> , inferior aspect; figs. 2 <i>c</i> , 4, peripheral aspect.			
	Fig. 2, 4. Double specimens.			
„	5-7.— <i>Discorbina tabernacularis</i> , Brady, . . . . .	×	100	648
	Figs. 5 <i>a</i> , 7 <i>a</i> . Superior aspect; figs. 5 <i>b</i> , 7 <i>b</i> , inferior aspect; figs. 5 <i>c</i> , 7 <i>c</i> , peripheral aspect.			
	Fig. 6. Double specimen.			
„	8, 9.— <i>Discorbina opercularis</i> , d'Orbigny, sp., . . . . .	×	100	650
	Figs. 8 <i>a</i> , 9. Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , <i>d</i> , peripheral aspect.			
„	10-12.— <i>Discorbina bertheloti</i> , d'Orbigny, sp., . . . . .			650
	Fig. 10 <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, . . . . .	×	90	
	Fig. 11. Superior aspect, . . . . .	×	60	
	Fig. 12. Inferior aspect, . . . . .	×	100	





DISCORBINA.

Harvard

W. H. Hollick ad nat del et lith.



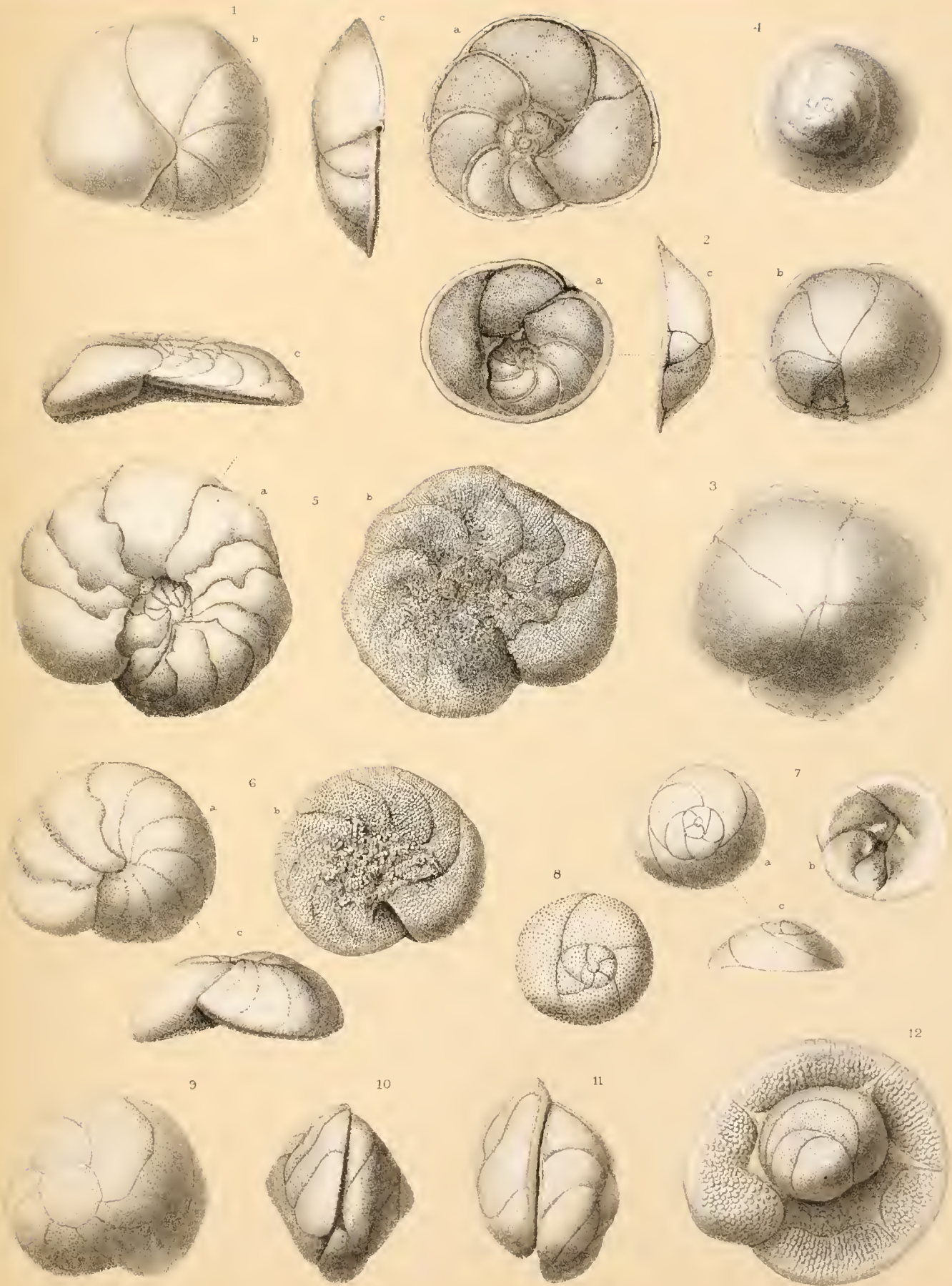


PLATE XC.

# PLATE XC.

## DISCORBINA.

		Diam.	Page
Figure	1.— <i>Discorbina bertheloti</i> , var. <i>baconica</i> , Hantken, var., . . . . .	× 75	651
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
,,	2, 3.— <i>Discorbina rarescens</i> , . . . . .	× 75	651
	Fig. 2 <i>a</i> . Superior aspect; figs. 2 <i>b</i> , 3, inferior aspect; fig. 2 <i>c</i> , peripheral aspect.		
,	4.— <i>Discorbina</i> ,—carinate form possibly related to the last-named species, . . . . .	× 100	651
,,	5, 6, 9–12.— <i>Discorbina parisiensis</i> , d'Orbigny, sp., . . . . .		648
	Figs. 5 <i>a</i> , 6 <i>a</i> , 9, Superior aspect; figs. 5 <i>b</i> , 6 <i>b</i> , inferior aspect; figs. 5 <i>c</i> , 6 <i>c</i> , peripheral aspect.		
	Figs. 10–12, Double specimens.		
	Figs. 5, 6, × 40 diam.; figs. 9, 12, × 90 diam.; figs. 10, 11, . . . . .	× 100	
,,	7, 8.— <i>Discorbina concinna</i> , n. sp., . . . . .	× 100	646
	Figs. 7 <i>a</i> , 8. Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peri- pheral aspect.		



Altho. not actual dissection

DISCORBINA.

Humboldt 1858





PLATE XCI.

# PLATE XCI.

## DISCORBINA.

		Diam.	Page
Figure 1.— <i>Discorbina polystomelloides</i> , Parker and Jones, .	×	30	652
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 2, 3.— <i>Discorbina biconcava</i> , Parker and Jones, .	×	60	653
Figs. 2 <i>a</i> , 3 <i>b</i> , Superior aspect; figs. 2 <i>b</i> , 3 <i>a</i> , inferior aspect; 2 <i>c</i> , 3 <i>c</i> , peripheral aspect.			
„ 4.— <i>Discorbina rugosa</i> , d'Orbigny, sp., .	×	90	652
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 5, 8.— <i>Discorbina allomorphinoides</i> , Reuss, sp., .	.		654
Fig. 5. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, .	×	100	
Fig. 8. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, .	×	50	
„ 6.— <i>Discorbina saulcii</i> , d'Orbigny, sp., .	×	50	653
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 7.— <i>Discorbina ventricosa</i> , n. sp., .	×	50	654
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 9.— <i>Discorbina obtusa</i> (?), d'Orbigny, sp., .	×	50	644
<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			





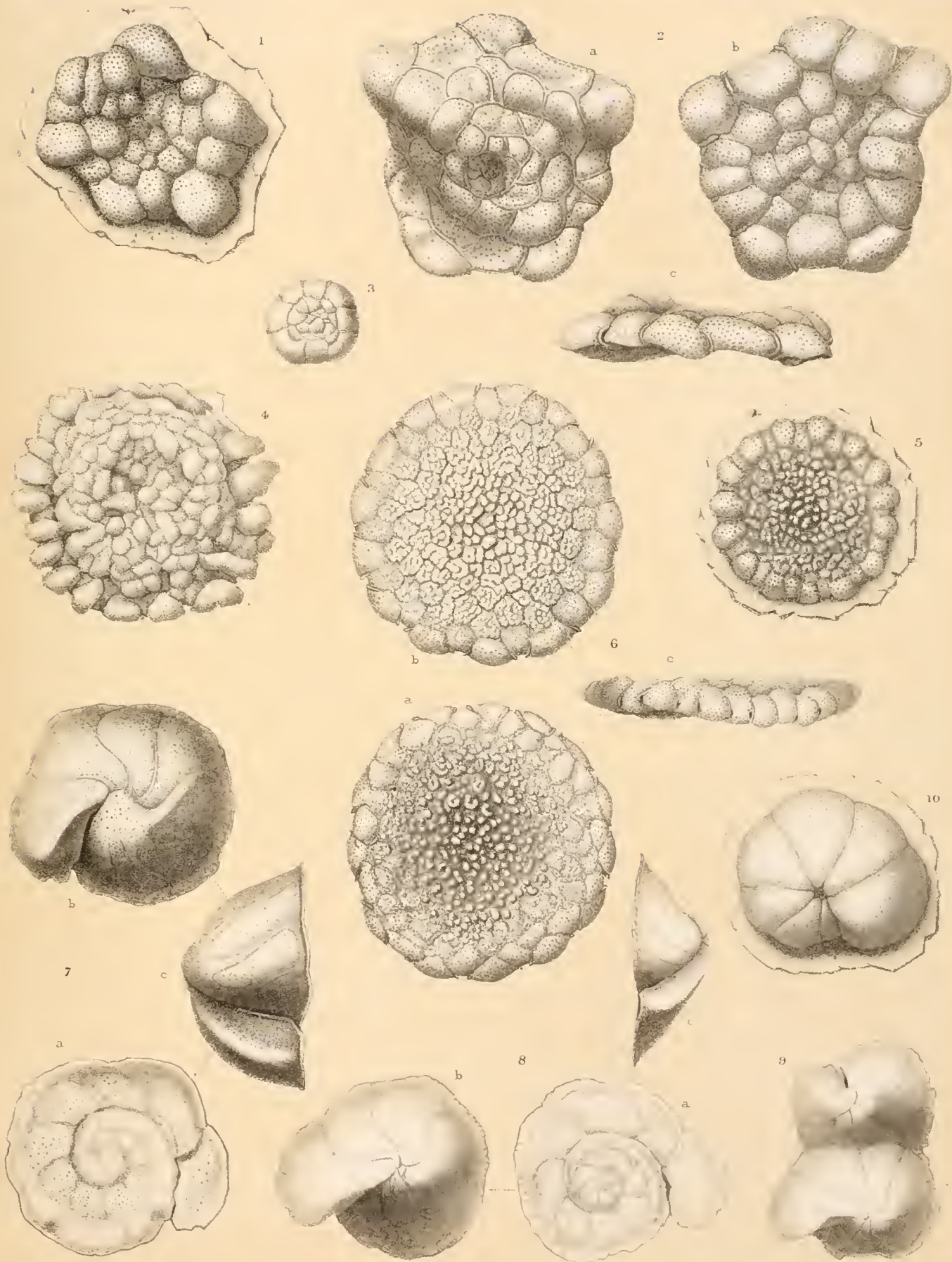
PLATE XCII.



## PLATE XCII.

### PLANORBULINA.—TRUNCATULINA.

		Diam.	Page
Figures 1-3.—	<i>Planorbulina mediterranensis</i> , d'Orbigny, .	× 35-45	656
	Fig. 2 <i>a</i> , Superior (attached) lateral aspect; figs. 1, 2 <i>b</i> , 3, inferior (free) aspect; fig. 2 <i>c</i> , peripheral aspect.		
„ 4.—	<i>Planorbulina acervalis</i> , n. sp., . . . . .	× 35	657
„ 5, 6.—	<i>Planorbulina larvata</i> , Parker and Jones, . . . . .	× 35	658
	Fig. 5. Adherent specimen.		
	Fig. 6. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„ 7-9.—	<i>Truncatulina refulgens</i> , Montfort, sp., . . . . .	× 30	659
	Figs. 7, 8. <i>a, a</i> , Superior aspect; <i>b, b</i> , inferior aspect; <i>c, c</i> , peripheral aspect.		
	Fig. 9. Monstrous specimen.		
„ 10.—	<i>Truncatulina lobatula</i> , Walker and Jacob, sp., . . . . .	× 60	660
	Small adherent specimen.		



AT Hollick ad nat del et lith

PLANORBULINA (Planorbulina-Truncatulina).

Hanhart imp



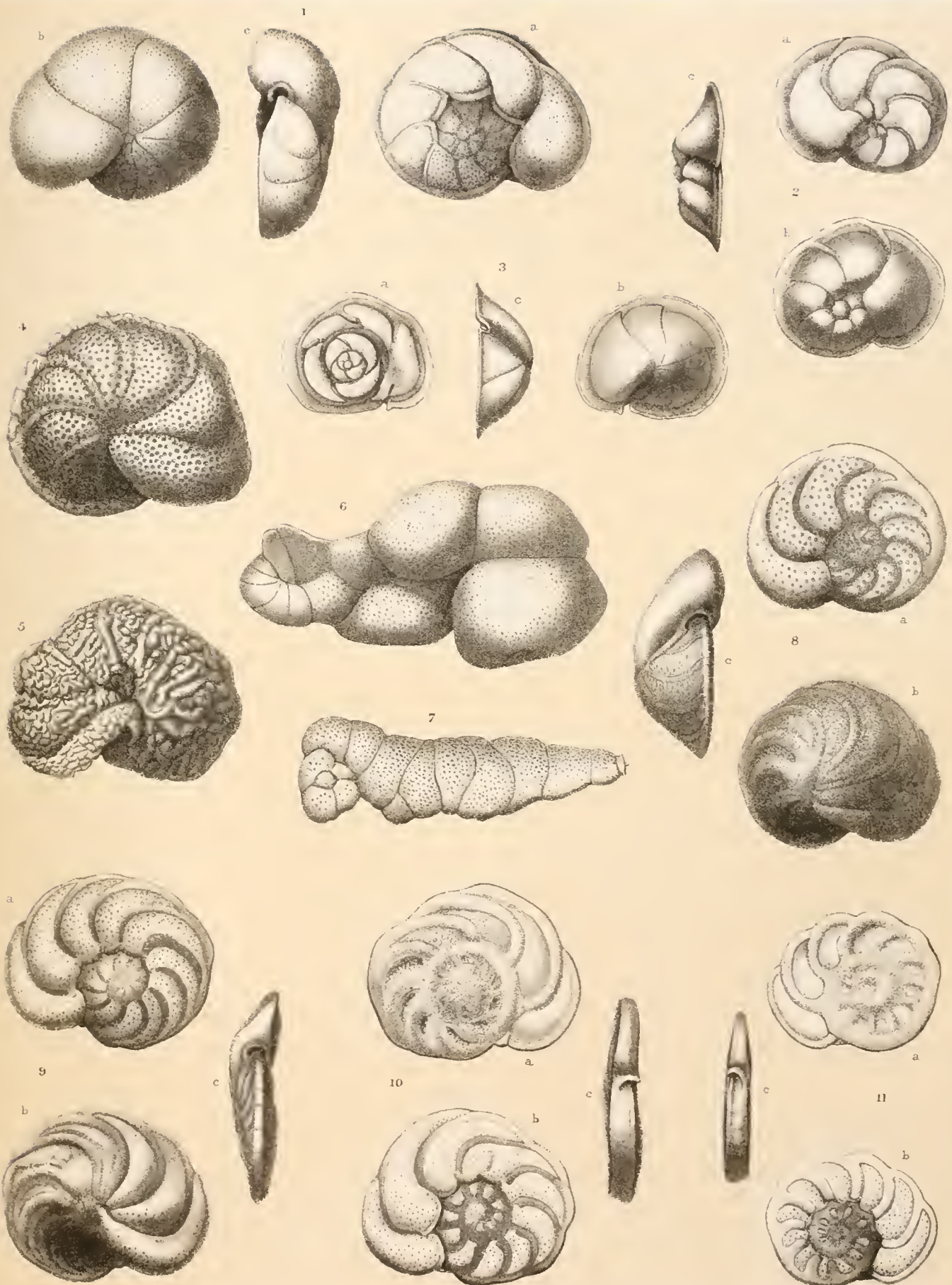
PLATE XCIII.

# PLATE XCIII.

## TRUNCATULINA.—ANOMALINA.

		Diam.	Page
Figures 1, 4, 5.—	<i>Truncatulina lobatula</i> , Walker and Jacob, sp., .	.	660
	Fig. 1. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, . . . . .	×	60
	Figs. 4, 5. Old thick-shelled specimens; inferior aspect,	×	40
„ 2, 3.—	<i>Truncatulina tenuimargo</i> , n. sp., . . . . .	×	60–100 662
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		
„ 6, 7.—	<i>Truncatulina variabilis</i> , d'Orbigny, . . . . .	×	50 661
„ 8, 9.—	<i>Truncatulina wuellerstorfi</i> , Schwager, sp., . . . . .	×	50–60 662
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		
„ 10, 11.—	<i>Anomalina ariminensis</i> , d'Orbigny, sp., . . . . .	×	55–60 674
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.		





PLANORBULINA (Truncatulina)

Hanhart imp



PLATE XCIV.

# PLATE XCIV.

## TRUNCATULINA.—ANOMALINA.

			Diam.	Page
Figure	1.— <i>Anomalina foveolata</i> , n. sp., . . . . .	×	60	674
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2, 3.— <i>Anomalina ammonoides</i> , Reuss, sp., . . . . .	.		672
	Fig. 2, × 55 diam.;—fig. 3, . . . . .	×	90	
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„	4, 5.— <i>Anomalina grosserugosa</i> , Gümbel, sp., . . . . .	×	40–45	673
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„	6.— <i>Truncatulina rostrata</i> , Brady, . . . . .	×	50	668
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	7.— <i>Truncatulina humilis</i> , n. sp., . . . . .	×	100	665
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	8.— <i>Truncatulina akneriana</i> , d'Orbigny, sp., . . . . .	×	45	663
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	9.— <i>Truncatulina ungeriana</i> , d'Orbigny, sp., . . . . .	×	35	664
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			









PLATE XCV.

# PLATE XCV.

## TRUNCATULINA.

			Diam.	Page
Figures	1-3.— <i>Truncatulina præcincta</i> , Karrer, sp., . . . . .			667
	Figs. 1, 2. <i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect, . . . . .	×	30	
	Fig. 3. Young specimen, . . . . .	×	35	
„	4.— <i>Truncatulina robertsoniana</i> , Brady, . . . . .	×	50	664
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	5.— <i>Truncatulina dutemplei</i> , d'Orbigny, sp., . . . . .	×	60	665
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	6.— <i>Truncatulina</i> , sp., intermediate form near <i>Trun-</i> <i>catulina haidingerii</i> , d'Orbigny, sp., . . . . .	×	40	
„	7.— <i>Truncatulina haidingerii</i> , d'Orbigny, sp., . . . . .	×	30	663
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	8.— <i>Truncatulina tumidula</i> , n. sp., . . . . .	×	100	666
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c,d</i> , peripheral aspect.			
„	9, 10.— <i>Truncatulina pygmæa</i> , Hantken, . . . . .	×	60	666
	Figs. 9 <i>a</i> , 10. Superior aspect; fig. 9 <i>b</i> , inferior aspect; fig. 9 <i>c</i> , peripheral aspect.			
„	11.— <i>Truncatulina tenera</i> , n. sp., . . . . .	×	75	665
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			



AT Holbek adnat. del et lith

PLANORBULINA (Truncatulina)

Hanhart imp





PLATE XCVI.

(ZOOLOGICAL CHALLENGER. — PART XXII. — 1884.) — Y.

## PLATE XCVI.

### TRUNCATULINA.

			Diam.	Page
Figure	1.— <i>Truncatulina rosea</i> , d'Orbigny, sp., . . . . .	×	70	667
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2.— <i>Truncatulina margaritifera</i> , Brady, . . . . .	×	28	667
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	3.— <i>Truncatulina culter</i> , Parker and Jones, sp., . . . . .	×	90	668
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	4.— <i>Truncatulina soluta</i> , Brady, . . . . .	×	100	670
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	5-8.— <i>Truncatulina reticulata</i> , Czjzek, sp., . . . . .			669
	Figs. 5-7, × 100 diam.;—fig. 8, . . . . .	×	70	
	Figs. 5 <i>a</i> , 8 <i>a</i> . Superior aspect; figs. 5 <i>b</i> , 6, 7, 8 <i>b</i> , inferior aspect; figs. 5 <i>c</i> , 8 <i>c</i> , peripheral aspect.			
„	9-14.— <i>Truncatulina echinata</i> , Brady, . . . . .	×	100	670
	Figs. 9-13. Specimens in various aspects.			
	Fig. 14. Transparent section of the test.			



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PLANORBULINA Truncatulina

Handwritten notes



PLATE XCVII.



# PLATE XCVII.

## ANOMALINA.—CARPENTERIA.

			Diam.	Page
Figures 1, 2.—	<i>Anomalina coronata</i> , Parker and Jones, . . . . .	.	.	675
	Fig. 1. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, . . . . .	×	40	
	Fig. 2. Peripheral aspect, . . . . .	×	50	
„ 3-6.—	<i>Anomalina polymorpha</i> , Costa, . . . . .	×	35-45	676
	Figs. 3-5. Lateral aspects; fig. 6, peripheral aspect.			
„ 7.—	<i>Anomalina polymorpha</i> (?), Costa, . . . . .	×	45	676
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 8-14.—	<i>Carpenteria proteiformis</i> , Goës, . . . . .	.	.	679
	Figs. 8-10. Lateral aspect, . . . . .	×	15-17	
	Fig. 11. Longitudinal section, not quite central; showing the arrangement of the segments and the thickness of the walls, . . . . .	×	18	
	Figs. 12-14. Portions of the surface of different specimens, more highly magnified, . . . . .	×	50	
	(Assigned in MS. to the allied genus <i>Rupertia</i> before the publication of Dr. Goës' description.)			

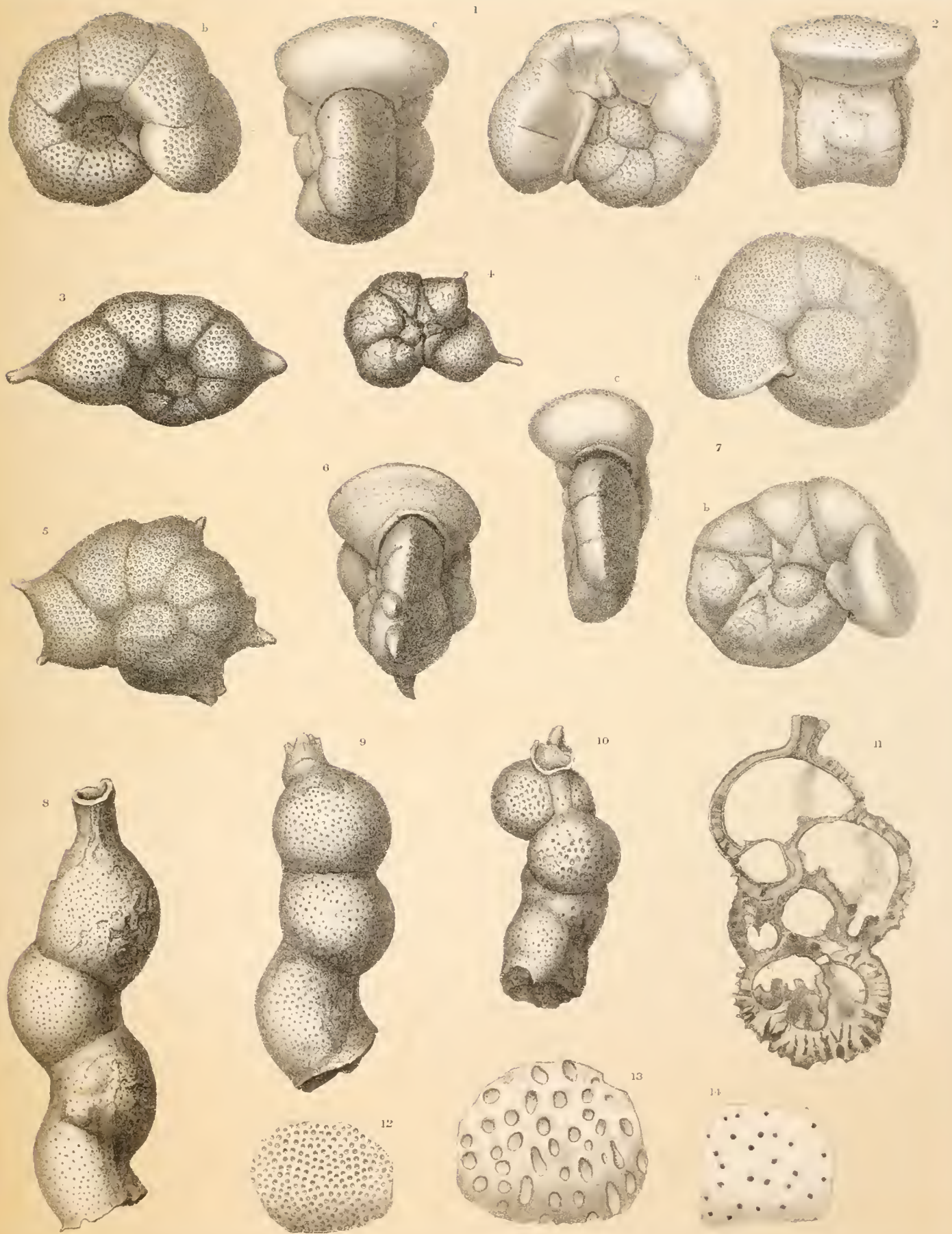




PLATE XCVIII.

## PLATE XCVIII.

### RUPERTIA.—CARPENTERIA.

	Diam	Page
Figures 1-12.— <i>Rupertia stabilis</i> , Wallich, . . . . .	× 40	680
Figs. 1-6. Specimens in various conditions and stages of growth ; lateral aspect.		
Fig. 7. Monstrous specimen.		
Fig. 8. Base of the test ; corresponding to the superior aspect of the Rotaliform shell.		
Fig. 9. Distal aspect of the test.		
Fig. 10. Specimen laid open longitudinally, to show the segmentation.		
Fig. 11. Specimen laid open transversely.		
Fig. 12. Longitudinal section, illustrating the general structure of the test.		
„ 13-17.—Young specimens of <i>Carpenteria</i> ,		677
Figs. 13, 15, 16 ( <i>Carpenteria monticularis</i> ?),	× 35	
Figs. 14, 17 ( <i>Carpenteria balaniformis</i> ?), . . . . .	× 30-40	





Adapted from original drawings

RUPERTIA — CARPENTERIA

Hannan: ms.



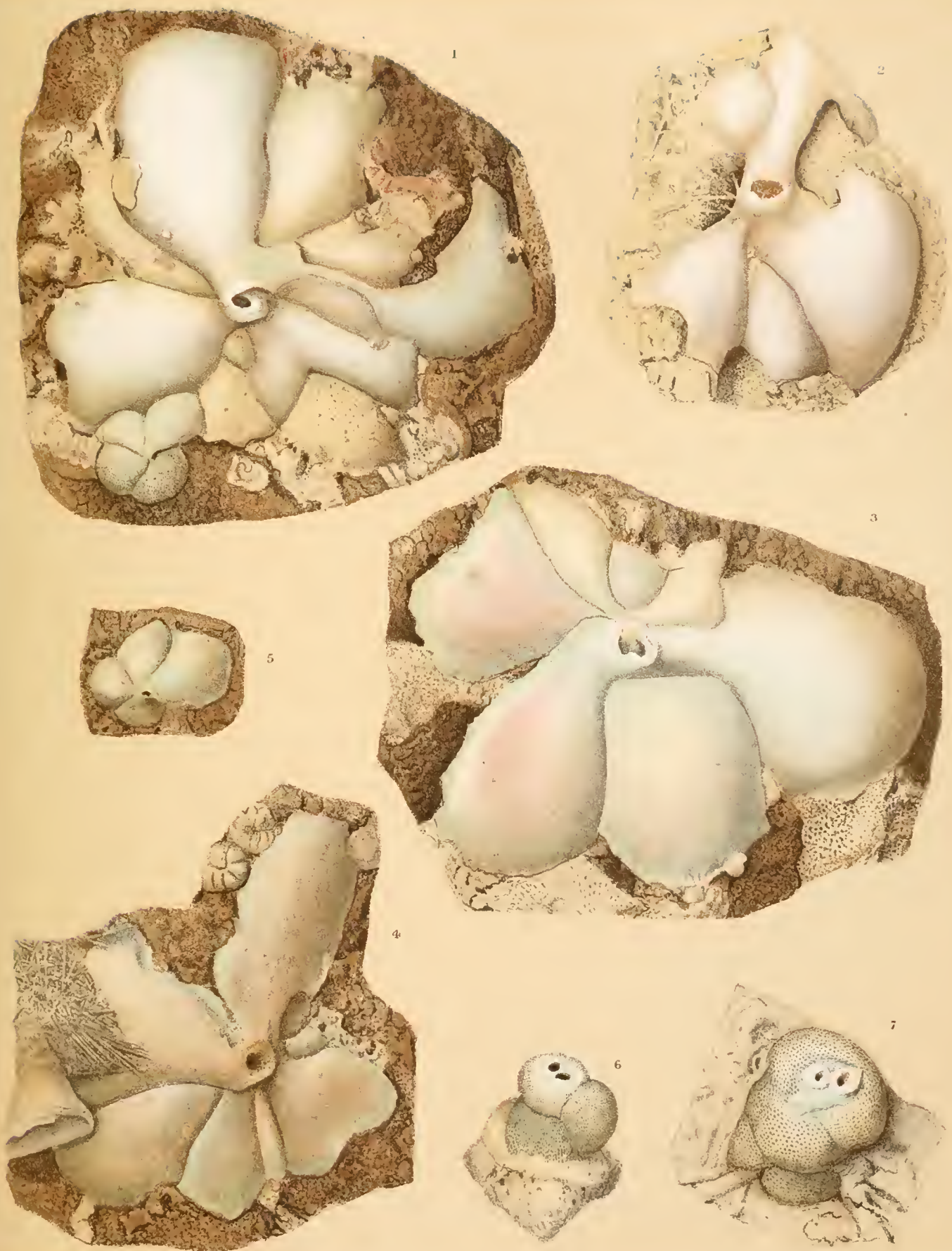
PLATE XCIX.

# PLATE XCIX.

## CARPENTERIA.

				Diam.	Page
Figures 1-5.—	<i>Carpenteria monticularis</i> , Carter,	.	.	× 12	677
	Fig. 5. Early stage of growth.				
„ 6, 7.—	<i>Carpenteria utricularis</i> , Carter,	.	.	× 15	678
	Early stages.				





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CARPENTARIA.

Hanhar. imp.





PLATE C.

## PLATE C.

### CARPENTERIA.—POLYTREMA.

			Diam.	Page
Figures 1-4.—	<i>Carpenteria utricularis</i> , Carter, . . .	×	15	678
	Fig. 1. Early stage; figs. 2-4, adult specimens.			
„ 5-9.—	<i>Polytrema miniaceum</i> , Linné, sp., . . .	.		721
	Figs. 5-8. Specimens illustrating the general form and structure of the test, . . .	×	20	
	Fig. 9. Minute terminal branches with apertures, . . .	×	50	



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CARPENTERIA — POLYTREMA.

Hanhart imp.





PLATE CL.

## PLATE CI.

### POLYTREMA.—TINOPORUS.—GYPSINA.

			Diam.	Page
Figure	1.— <i>Polytrema miniaceum</i> , Linné, sp.,	.	× 40	721
	Transparent section of the test.			
„	2, 3.— <i>Polytrema miniaceum</i> , var. <i>alba</i> , Carter,	.	× 30	721
„	4-7.— <i>Tinoporus baculatus</i> (Montfort ?) Carpenter,	.		716
	Figs. 4, 5. Lateral aspect; fig. 6, peripheral aspect,	.	× 30	
	Fig. 7. Transverse section of the test,	.	× 40	
„	8.— <i>Gypsina globulus</i> , Reuss, sp.,	.	× 30	717
„	9-12.— <i>Gypsina vesicularis</i> , Parker and Jones, sp.,	.		718
	Figs. 9-11. Various aspects of the test,	.	× 30	
	Fig. 12. Section, viewed by transmitted light,	.	× 40	

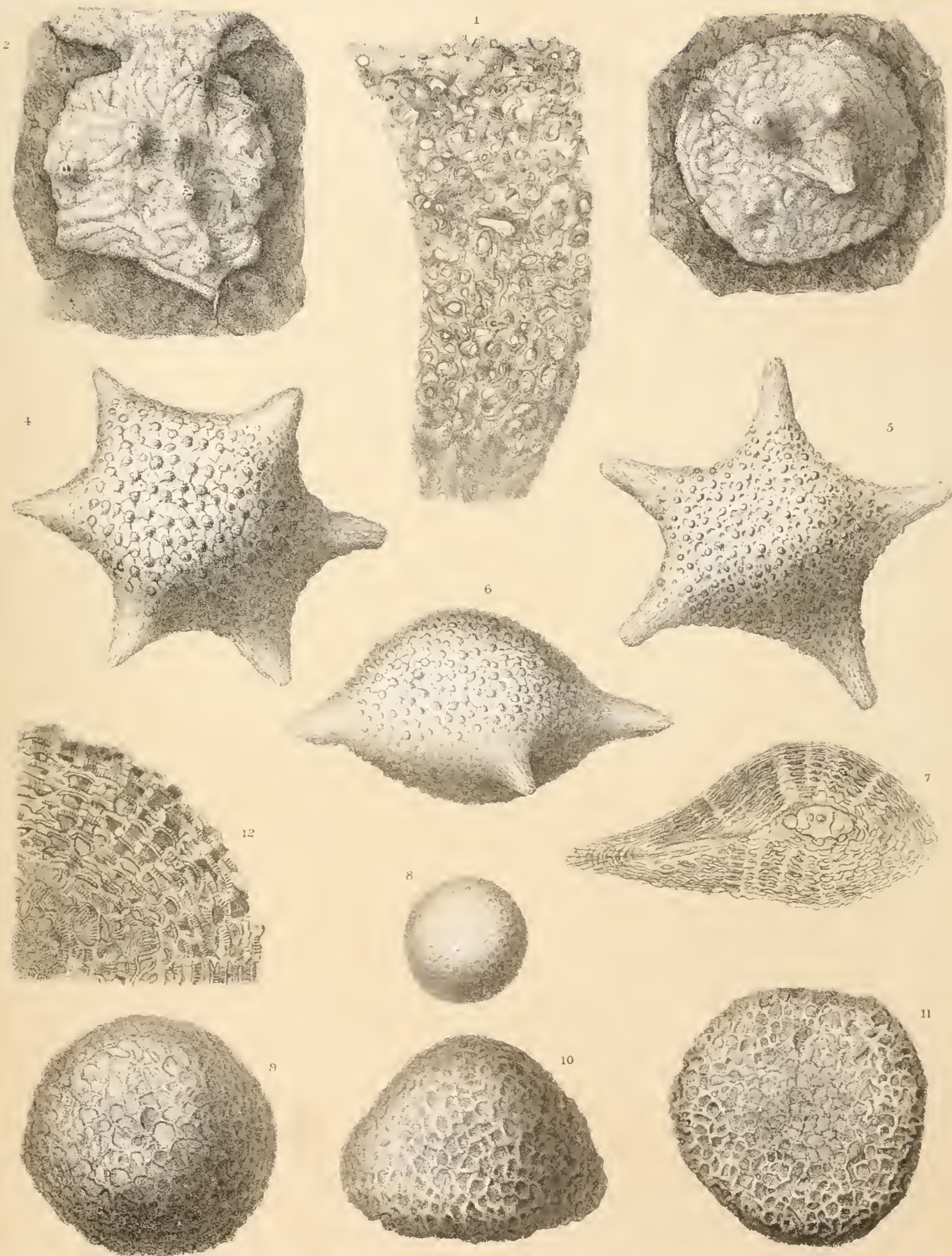




PLATE CII.



## PLATE CII.

### GYPSINA.—CYMBALOPORA.

		Diam.	Page
Figures	1-6.— <i>Gypsina inhærens</i> , Schultze, sp., . . . . .	× 30-40	718
	Figs. 1-3. Free surface; fig. 4, adherent surface; fig. 5, peripheral aspect; fig. 6, horizontal section of the test, viewed by transmitted light.		
„	7-12.— <i>Cymbalopora (Tretomphalus) bulloides</i> , d'Orbigny, sp., . . . . .	× 60	638
	Figs. 7-10. Lateral aspect; fig. 11, superior aspect; fig. 12, inferior aspect.		
	Fig. 7. Is drawn from a pelagic specimen; the rest from bottom specimens.		
„	13.— <i>Cymbalopora poeyi</i> , d'Orbigny, sp., . . . . .	× 50	636
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	14.— <i>Cymbalopora poeyi</i> , var., . . . . .	× 50	637
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect; <i>d</i> , peripheral aspect of a somewhat similar, more slightly built specimen.		
„	15-18.— <i>Cymbalopora tabellaformis</i> , n. sp., . . . . .	× 40	637
	Fig. 15. Superior aspect; figs. 16, 17, inferior aspect; fig. 18, peripheral aspect.		



TINOPORUS Gypsin. CYMBALOPORA.





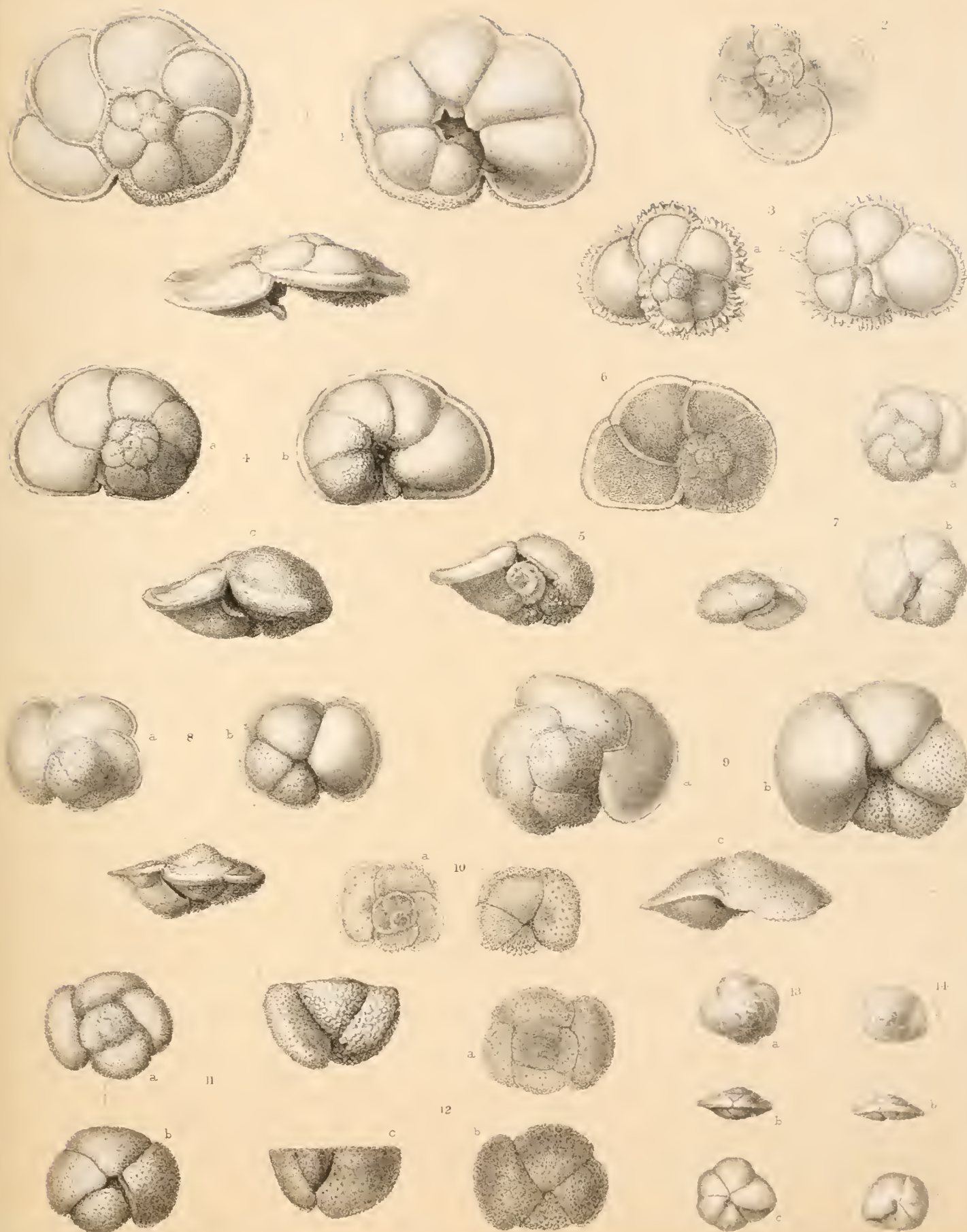
PLATE CIII.

# PLATE CIII.

## PULVINULINA.

			Diam.	Page
Figures	1, 2.— <i>Pulvinulina menardii</i> , d'Orbigny, sp., .	×	35	690
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
	Fig. 1. Bottom specimen; fig. 2, surface specimen.			
„	3.— <i>Pulvinulina menardii</i> , var. <i>fimbriata</i> , nov., .	×	35	691
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect.			
„	4-6.— <i>Pulvinulina tumida</i> , Brady, . . . . .	×	35	692
	Figs. 4 <i>a</i> , 6. Superior aspect; fig. 4 <i>b</i> , inferior aspect; fig. 4 <i>c</i> , 5, peripheral aspect.			
	Figs. 4, 5. Bottom specimens; fig. 6, surface specimen.			
„	7.— <i>Pulvinulina patagonica</i> , d'Orbigny, sp., .	×	35	693
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	8-10.— <i>Pulvinulina canariensis</i> , d'Orbigny, sp., .	×	35	692
	<i>a,a,a</i> , Superior aspect; <i>b,b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
	Figs. 8, 9. Bottom specimens; fig. 10, surface specimen.			
„	11, 12.— <i>Pulvinulina crassa</i> , d'Orbigny, sp., .	×	40	694
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
	Fig. 11. Bottom specimen; fig. 12, surface specimen.			
„	13, 14.— <i>Pulvinulina exigua</i> , n. sp., . . . . .	×	40	696
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			





W. A. C. del. et lith.

PULVINULINA



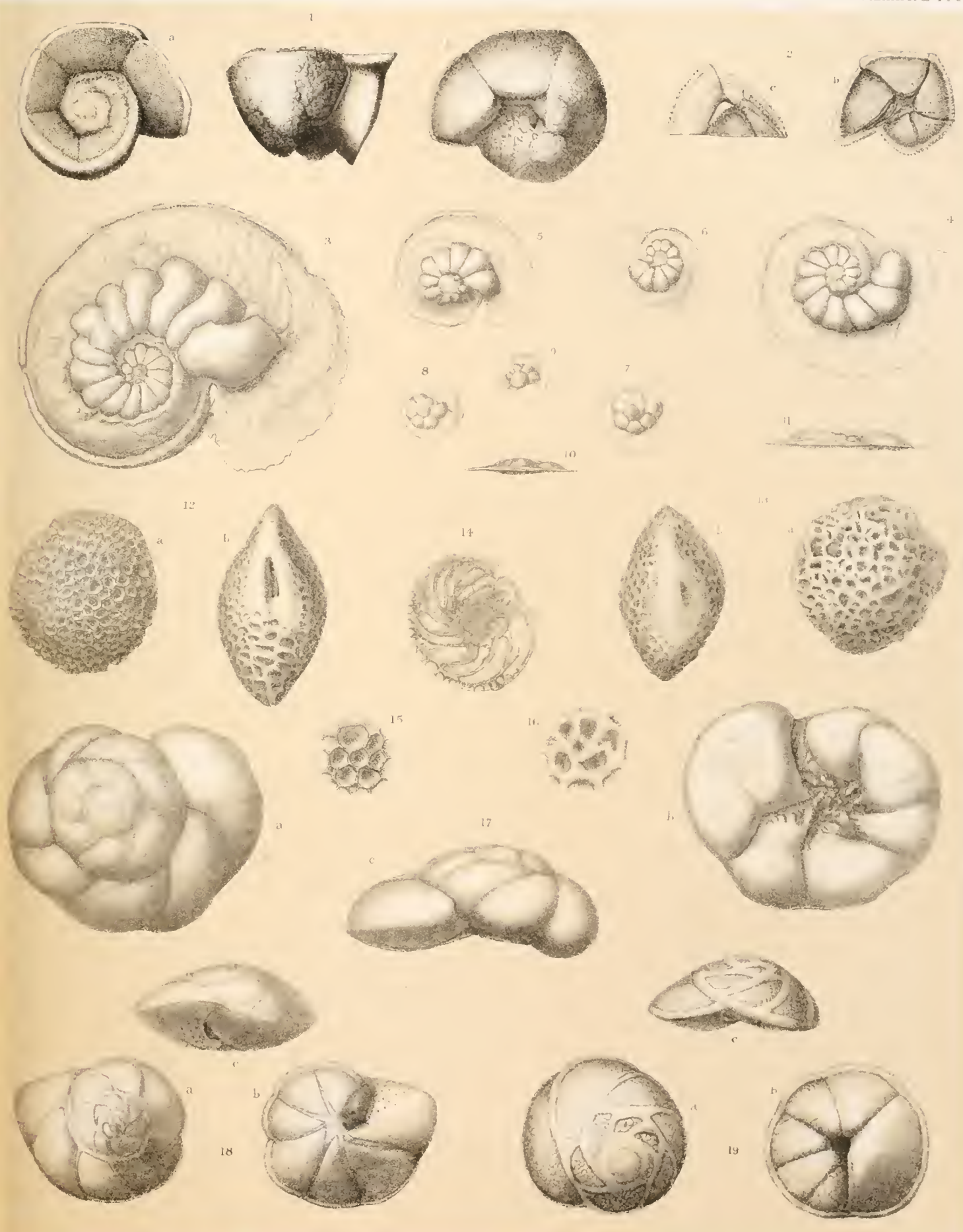
PLATE CIV.

# PLATE CIV.

## PULVINULINA.

			Diam.	Page
Figures	1, 2.— <i>Pulvinulina micheliniana</i> , d'Orbigny, sp., .	×	40	694
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
	Fig. 1. Bottom specimen; fig. 2, surface specimen.			
„	3-11.— <i>Pulvinulina pauperata</i> , Parker and Jones, .	×	25	696
	Figs. 3-9. Lateral aspects of the shell, in various stages.			
	Figs. 10-11. Peripheral aspect.			
„	12-16.— <i>Pulvinulina favus</i> , Brady, . . .			701
	Figs. 12 <i>a</i> , 13 <i>a</i> , Lateral aspect; figs. 12 <i>b</i> , 13 <i>b</i> , peripheral aspect, . . .	×	40	
	Fig. 14. Horizontal section of the test, . . .	×	40	
	Figs. 15, 16. Portions of the surface more highly magnified, . . .	×	80	
„	17.— <i>Pulvinulina punctulata</i> , d'Orbigny, sp., .	×	16	685
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	18.— <i>Pulvinulina repanda</i> , Fichtel and Moll, sp., .	×	30	684
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	19.— <i>Pulvinulina repanda</i> , var. <i>concamerata</i> , Montagu, var., . . .	×	30	685
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			





Hollick ad nat del et lith

PULVINULINA

Hanhar imp





PLATE CV.

# PLATE CV.

## PULVINULINA.

Figure			Diam.	Page
1.—	<i>Pulvinulina concentrica</i> , Parker and Jones, .	×	35	686
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 2.—	<i>Pulvinulina umbonata</i> , Reuss, . . . . .	×	50	695
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 3-6.—	<i>Pulvinulina elegans</i> , d'Orbigny, sp., . . . . .			699
	Fig. 3. Deep-water form ( <i>Pulvinulina partschiana</i> , d'Orbigny, sp.); <i>a</i> , superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect, . . . . .	×	40	
	Figs. 4, 5. Typical specimens, from medium depths, . . . . .	×	35	
	Fig. 6. Carinate specimen, . . . . .	×	35	
„ 7.—	<i>Pulvinulina procera</i> , Brady, . . . . .	×	35	698
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„ 8, 9.—	<i>Pulvinulina karsteni</i> , Reuss, sp., . . . . .	×	50	698
	Fig. 8. Specimen from Magellans Strait.			
	Fig. 9. Arctic specimen.			
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			







PLATE CVI.

# PLATE CVI.

## PULVINULINA.—ROTALIA.

			Diam.	Page
Figure	1.— <i>Pulvinulina berthelotiana</i> , d'Orbigny, sp., .	×	35	701
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	2, 3.— <i>Pulvinulina lateralis</i> , Terquem, sp., .	×	35–40	689
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„	4.— <i>Pulvinulina oblonga</i> , Williamson, sp., .	×	40	688
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	5.— <i>Pulvinulina auricula</i> , Fichtel and Moll, sp., .	×	40	688
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	6, 7.— <i>Pulvinulina hauerii</i> , d'Orbigny, sp., .	×	40–50	690
	<i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.			
„	8.— <i>Pulvinulina oblonga</i> , var. <i>scabra</i> , nov., .	×	50	689
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			
„	9.— <i>Rotalia papillosa</i> , n. sp., .	×	30	708
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.			

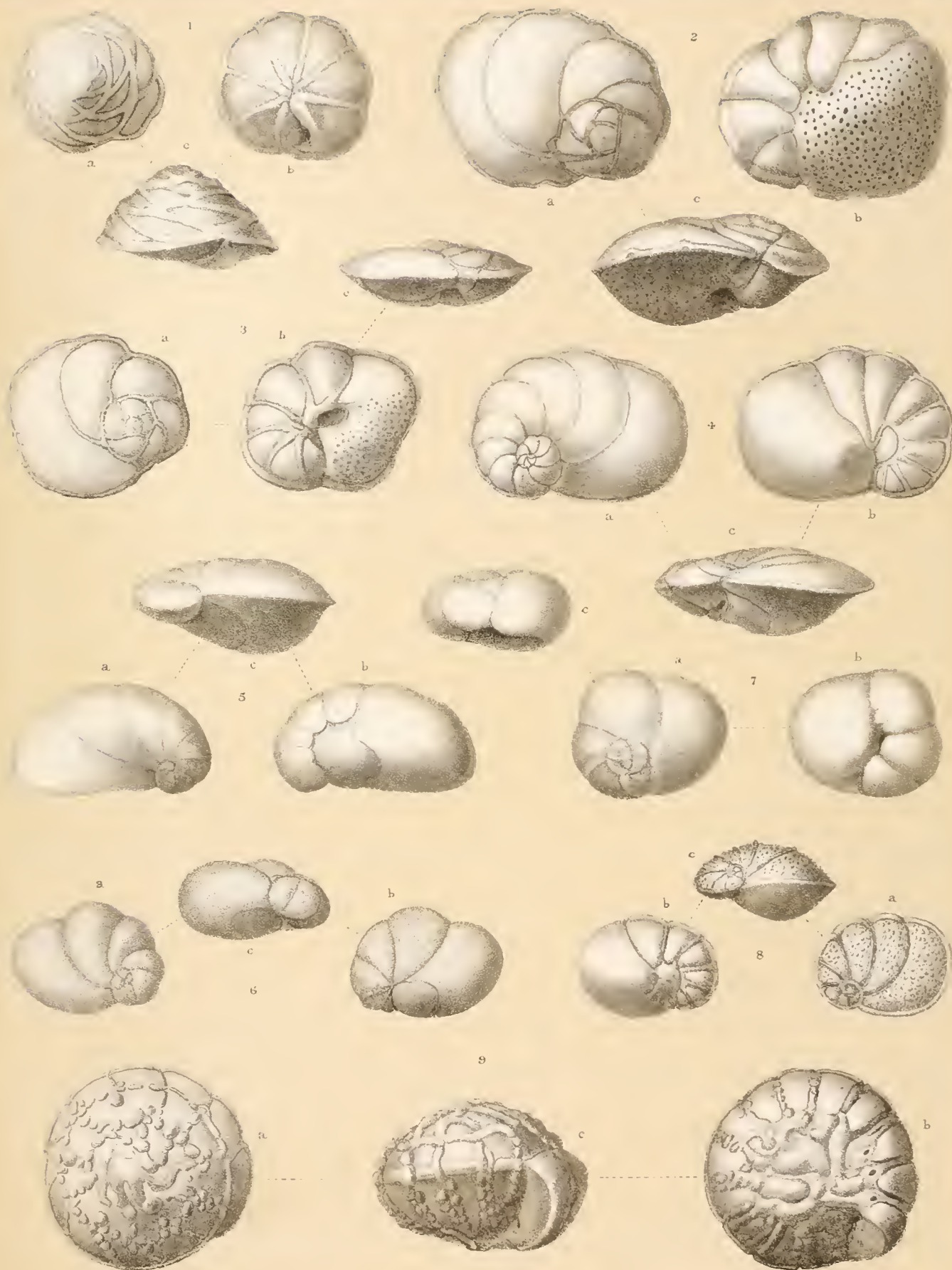




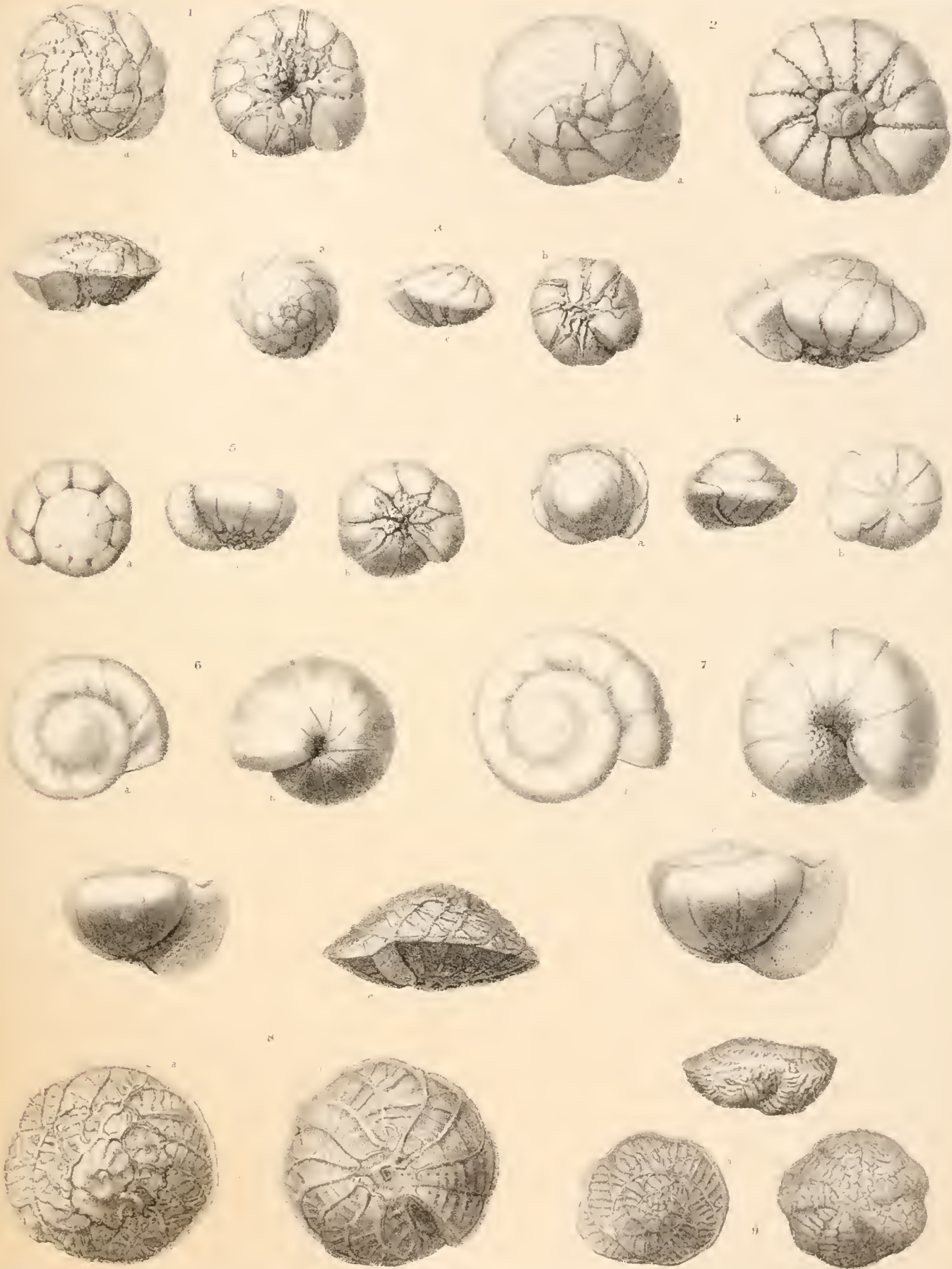
PLATE CVII.



# PLATE CVII.

## ROTALIA.

Figure		Diam.	Page
1.—	<i>Rotalia papillosa</i> , var. <i>compressiuscula</i> , nov., <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.	× 30	708
2, 3.—	<i>Rotalia beccarii</i> , Linné, sp., <i>a,a</i> , Superior aspect. <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.	× 50	704
4.—	<i>Rotalia broeckhiana</i> , Karrer, <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.	× 50	705
5.—	<i>Rotalia orbicularis</i> (?), d'Orbigny, <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect. (A passage-form between <i>Rotalia beccarii</i> and <i>Rotalia orbicularis</i> . The typical <i>Rotalia orbicularis</i> is given at Pl. CXV. fig. 6.)	× 50	706
6, 7.—	<i>Rotalia soldanii</i> , d'Orbigny, <i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.	× 40	706
8, 9.—	<i>Rotalia clathrata</i> , n. sp., <i>a,a</i> , Superior aspect; <i>b,b</i> , inferior aspect; <i>c,c</i> , peripheral aspect.	× 50	709



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RODALIA.

Antar. m.



PLATE CVIII.

# PLATE CVIII.

## ROTALIA.—CALCARINA.

Figure		Diam.	Page
1.	— <i>Rotalia papillosa</i> , var. <i>compressiuscula</i> , nov. (young), . . . . .	× 50	708
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	2.— <i>Rotalia venusta</i> , n. sp., . . . . .	× 50	708
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	3.— <i>Rotalia calcar</i> , d'Orbigny, sp., . . . . .	× 50	709
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	4. Young specimen of the same, or possibly of <i>Rotalia dentata</i> , Parker and Jones, . . . . .	× 50	710
„	5, 7.— <i>Calcarina spengleri</i> , Linné, sp., . . . . .	× 30–35	712
	Fig. 5 <i>a</i> . Superior aspect; figs. 5 <i>b</i> , 7, inferior aspect; fig. 5 <i>c</i> , peripheral aspect.		
„	6.— <i>Calcarina defranci</i> , d'Orbigny, . . . . .	× 30	714
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.		
„	8, 9.— <i>Calcarina hispida</i> , Brady, . . . . .	× 30	713



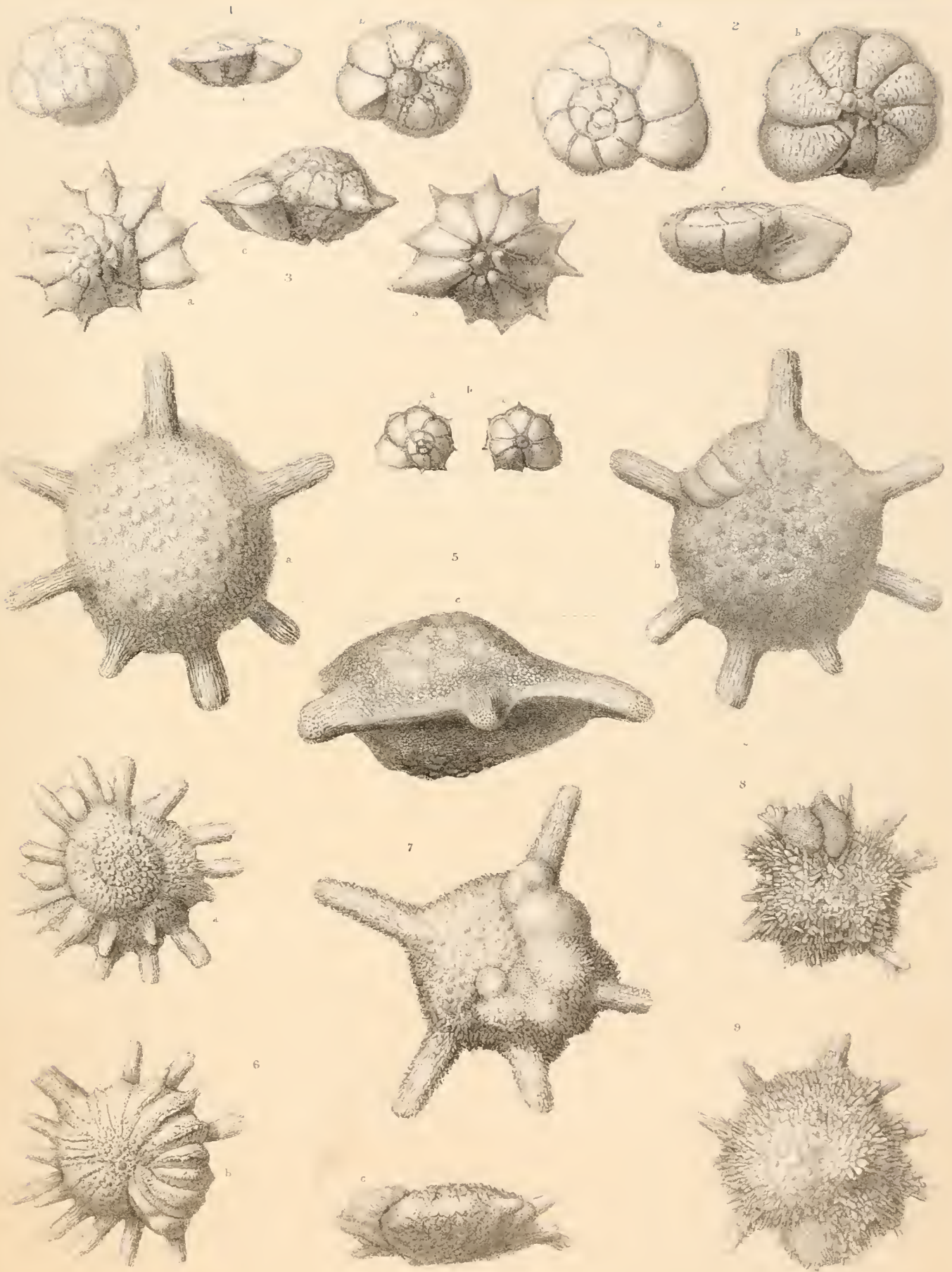




PLATE CIX.

## PLATE CIX.

### NONIONINA.—POLYSTOMELLA.

*a*, Lateral aspect; *b*, peripheral aspect.

			Diam.	Page
Figures	1, 2.— <i>Nonionina asterizans</i> , Fichtel and Moll, sp., .	×	50	728
„	3-5.— <i>Nonionina stelligera</i> , d'Orbigny, .	.	.	728
	Figs. 3, 4 × 75 diam. ;—fig. 5, .	×	60	
„	6, 7.— <i>Nonionina depressula</i> , Walker and Jacob, sp.,	×	75	725
„	8, 9.— <i>Nonionina umbilicatula</i> , Montagu, sp., .	×	70	726
„	10, 11.— <i>Nonionina pompilioides</i> , Fichtel and Moll, sp.,	×	75	727
„	12, 13.— <i>Nonionina boueana</i> , d'Orbigny, .	×	70	729
„	14-16.— <i>Nonionina scapha</i> , Fichtel and Moll, sp., .	×	75	730
„	17-19.— <i>Nonionina turgida</i> , Williamson, sp., .	×	75	731
„	20, 21.— <i>Nonionina orbicularis</i> , Brady, .	×	50	727
„	22, 23.— <i>Polystomella striatopunctata</i> , Fichtel and Moll, sp., . . . . .	×	75	733





A. H. Hollick ad nat. del. et lith.

NONIONINA — POLYSTOMELLA.

Hanhart imp.





PLATE CX.

# PLATE CX.

## POLYSTOMELLA.

*a*, Lateral aspect ; *b*, peripheral aspect.

Figure			Diam	Page
	1.— <i>Polystomella subnodosa</i> , Münster, sp., .	×	75	734
„	2-5.— <i>Polystomella arctica</i> , Parker and Jones, .	.	.	735
	Figs. 2 <i>a</i> , 3, Lateral aspect; fig. 2 <i>b</i> , peripheral aspect, . . . . .	×	30	
	Fig. 4. Horizontal section, showing the segmentation, and the laminated thickening of the walls, . . . . .	×	30	
	Fig. 5. Portion of a section, more highly magnified, showing the septal apertures, and the forked interseptal canals the openings of which form the double rows of natural orifices, . . . . .	×	100	
„	6, 7.— <i>Polystomella crispa</i> , Linné, sp., . . . . .	×	40	736
„	8, 9, 11.— <i>Polystomella macella</i> , Fichtel and Moll, sp., . . . . .	×	45-60	737
„	10.—Young specimen, possibly of the same species, with the peripheral ends of the septa forming angular or pointed projections, . . . . .	×	60	737
„	12.— <i>Polystomella vermiculata</i> , Brady, . . . . .	×	65	738
„	13-15.— <i>Polystomella imperatrix</i> , Brady, . . . . .	×	30	738
„	16-17.— <i>Polystomella craticulata</i> , Fichtel and Moll, sp., . . . . .	×	30-40	739

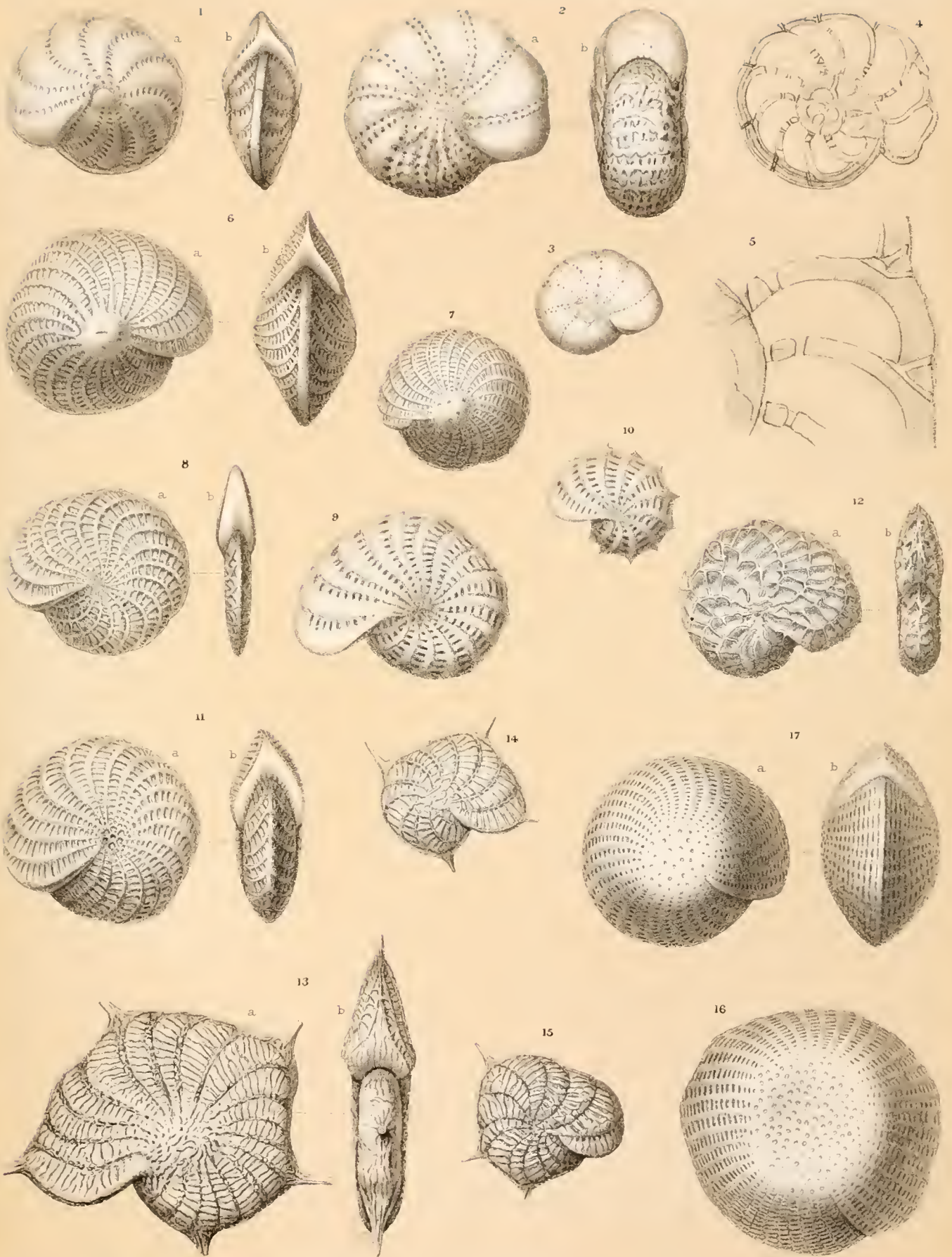






PLATE CXI.

## PLATE CXI.

### AMPHISTEGINA.—CYCLOCYPEUS.

			Diam.	Page
Figures 1-7.—	<i>Amphistegina lessonii</i> , d'Orbigny,	. . ×	30	740
	<i>a</i> , Superior lateral aspect ; <i>b</i> , inferior lateral aspect ; <i>c</i> , peripheral aspect.			
	Figs. 1-4. Typical, compressed, lenticular form.			
	Figs. 5, 6. Thick variety, commonly inequilateral.			
	Fig. 7. Thick, very inequilateral or dome-shape variety.			
„	8.— <i>Cycloelypeus guembelianus</i> , Brady,	. . ×	35	751
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.			





PLATE CXII.

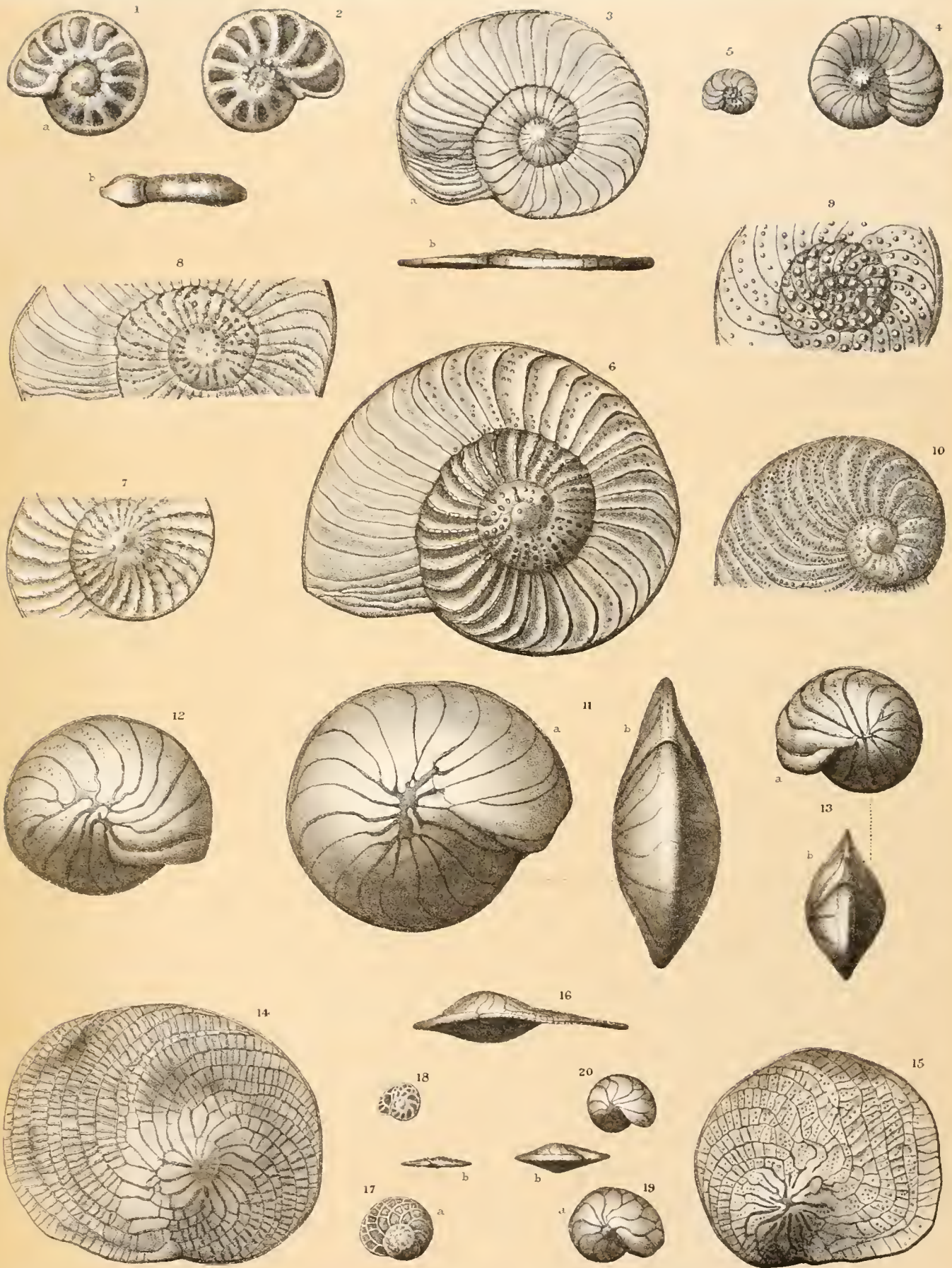
(ZOOLOGICAL CHALLENGER. — PART XXII. — 1884.) — Y.



## PLATE CXII.

### OPERCULINA.—NUMMULITES.—HETEROSTEGINA.

			Diam.	Page
Figures	1, 2.— <i>Operculina ammonoides</i> , Gronovius, sp., .	×	50	745
	Figs. 1 <i>a</i> , 2. Lateral aspect; fig. 1 <i>b</i> , peripheral aspect.			
„	3, 4, 5, 8.— <i>Operculina complanata</i> , Defrance, sp., .	×	12	743
	Figs. 3 <i>a</i> , 4, 5, 8. Lateral aspect; fig. 3 <i>b</i> , peripheral aspect.			
„	6, 7, 9, 10.— <i>Operculina complanata</i> , var. <i>granulosa</i> , Leymerie, . . . . .	×	12	743
„	11–13.— <i>Nummulites cumingii</i> , Carpenter, . . . . .	×	18	749
	Figs. 11 <i>a</i> , 12, 13 <i>a</i> . Lateral aspect; figs. 11 <i>b</i> , 13 <i>b</i> , peripheral aspect.			
„	14–18.— <i>Heterostegina depressa</i> , d'Orbigny, . . . . .			746
	Figs. 14, 15. Adult specimens, lateral aspect, . . . . .	×	12	
	Fig. 16. Peripheral aspect, . . . . .	×	15	
	Figs. 17, 18. Young specimens, . . . . .	×	25	
„	19, 20.— <i>Heterostegina</i> , sp., . . . . .			746
	Young specimens ( <i>cf. Heterostegina curva</i> , Mœbius), . . . . .	×	25	



OPERCULINA—NUMMULINA—HETEROSTECINA.

Hanhart imp.



PLATE CXIII.

# PLATE CXIII.

## TEXTULARIA.—CASSIDULINA.—CORNUSPIRA, &c.

Figure			Diam.	Page
1.	— <i>Textularia conica</i> , d'Orbigny, short variety, <i>a</i> , Lateral aspect ; <i>b</i> , oral end.	×	50	365
2.	— <i>Textularia crispata</i> , n. sp., <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.	×	60	359
3-5.	— <i>Textularia transversaria</i> , n. sp., Figs. 3 <i>a</i> , 4, 5. Lateral aspect ; 3 <i>b</i> , oral end.	×	75	359
6.	— <i>Bulimina convoluta</i> , Williamson, <i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.	×	100	409
7.	— <i>Bolivina lobata</i> , var. <i>strigosa</i> , nov., <i>a</i> , Lateral aspect ; <i>b</i> , oral end.	×	80	425
8.	— <i>Cassidulina calabra</i> , Seguenza, sp., <i>a</i> , <i>b</i> , Ventral and dorsal peripheral aspects ; <i>c</i> , lateral aspect.	×	75	431
9.	— <i>Cassidulina (Orthoplecta) clavata</i> , n. sp.,	×	100	432
10.	— <i>Ehrenbergina pupa</i> , d'Orbigny, sp., <i>a</i> , <i>b</i> , Ventral and dorsal peripheral aspects ; <i>c</i> , lateral aspect.	×	80	433
11.	— <i>Cristellaria latifrons</i> , n. sp., <i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.	×	35	544
12.	— <i>Cristellaria dentata</i> , Karrer, <i>a</i> , Lateral aspect ; <i>b</i> , front peripheral aspect.	×	35	540
13.	— <i>Amphicoryne</i> , sp. (?)	×	50	556
14.	— <i>Sagrina limbata</i> , n. sp.,	×	100	586
15.	— <i>Miliolina scrobiculata</i> , n. sp., <i>a</i> , <i>b</i> , Lateral aspects ; <i>c</i> , oral aspect.	×	50	173
16.	— <i>Miliolina pygmæa</i> , Reuss, sp., <i>a</i> , Lateral aspect ; <i>b</i> , oral aspect.	×	45	163
17.	— <i>Miliolina ferussacii</i> , d'Orbigny, sp., Lateral aspects.	×	30	175
18, 19.	— <i>Cornuspira striolata</i> , Brady, Fig. 18. <i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect, Fig. 19. Portion of the surface, more highly magnified,	×	5 20	202
20.	— <i>Cornuspira crassisepta</i> , Brady,	×	60	202
21.	— <i>Cornuspira lacunosa</i> , Brady,	×	60	202







PLATE CXIV.

# PLATE CXIV.

## MILIOLINA.—PLANISPIRINA.—LAGENA, &C.

				Diam.	Page
Figure	1.— <i>Miliolina terquemiana</i> , n. sp., . . .	×	60	166	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	2.— <i>Miliolina bertheliniana</i> , n. sp., . . .	×	100	166	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	3.— <i>Miliolina bucculenta</i> , n. sp., . . .	×	20	170	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	4-7.— <i>Planispirina communis</i> , Seguenza, . . .	×	20	196	
	Figs. 4 <i>a</i> , 5, 6. Lateral aspect; <i>b</i> , peripheral aspect.				
	Fig. 5. Abraded specimen, showing the Nummu- line lamination of the shell.				
	Fig. 7. Horizontal section of the shell.				
„	8.— <i>Lagena lavigata</i> , Reuss, sp., . . .	×	70	473	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	9.— <i>Lagena spiralis</i> , n. sp., . . .	×	120	468	
„	10.— <i>Lagena formosa</i> , var. <i>brevis</i> , nov., . . .	×	100	480	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	11.— <i>Lagena quadrangularis</i> , n. sp., . . .	×	100	483	
	<i>a</i> , Lateral aspect <i>b</i> , oral aspect.				
„	12.— <i>Frondicularia archiaciana</i> , d'Orbigny, . . .	×	60	520	
„	13.— <i>Vaginulina legumen</i> , var. <i>arquata</i> , nov., . . .	×	15	531	
„	14.— <i>Cristellaria wetherellii</i> , Rupert Jones, sp., . . .	×	18	537	
„	15, 16.— <i>Cristellaria compressa</i> , d'Orbigny, . . .	×	10	538	
	Figs. 15, 16 <i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.				
„	17.— <i>Cristellaria acutauricularis</i> , Fichtel and Moll, sp., . . .	×	70	543	
	<i>a</i> , Lateral aspect; <i>b</i> , front peripheral aspect.				
„	18.— <i>Sagrina nodosa</i> , Parker and Jones, . . .	×	70	583	
	<i>a</i> , Lateral aspect; <i>b</i> , oral aspect.				
„	19, 20.— <i>Globigerina pachyderma</i> , Ehrenberg, sp., . . .	×	50	600	
	Fig. 19. <i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , pripheral aspect.				
	Fig. 20. Horizontal section of the shell.				
„	21.— <i>Globigerina linneana</i> , d'Orbigny, sp., . . .	.	.	598	
	<i>a</i> , Superior aspect; <i>b</i> , inferior aspect; <i>c</i> , peripheral aspect.				
	Copied from d'Orbigny.				









PLATE CXV.

## PLATE CXV.

### PULVINULINA.—ROTALIA, &C.

			Diam.	Page
Figure 1.—	<i>Pulvinulina schreibersii</i> , d'Orbigny, n. sp., . . .	×	30	697
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.			
„ 2.—	<i>Pulvinulina vermiculata</i> , d'Orbigny, sp., . . .	×	30	687
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.			
„ 3.—	<i>Pulvinulina dispansa</i> , n. sp., . . .	×	14	687
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.			
„ 4, 5.—	<i>Truncatulina lobatula</i> , Walker and Jacob, sp., . . .	×	30	660
	Fig. 4. Adherent specimen enclosed in a nidus of sand.			
	Fig. 5. Similar specimen, the sand partially removed.			
„ 6.—	<i>Rotalia orbicularis</i> , d'Orbigny, . . .	×	50	706
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.			
„ 7.—	<i>Rotalia schroeteriana</i> , Parker and Jones, . . .	×	25	707
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect ; <i>c</i> , peripheral aspect.			
„ 8.—	<i>Rotalia pulchella</i> , d'Orbigny, sp., . . .	×	50	710
	<i>a</i> , Superior aspect ; <i>b</i> , inferior aspect.			
„ 9.—	<i>Nonionina boueana</i> , var. <i>armata</i> , nov., . . .	×	60	730
	<i>a</i> , Lateral aspect ; <i>b</i> , peripheral aspect.			



















